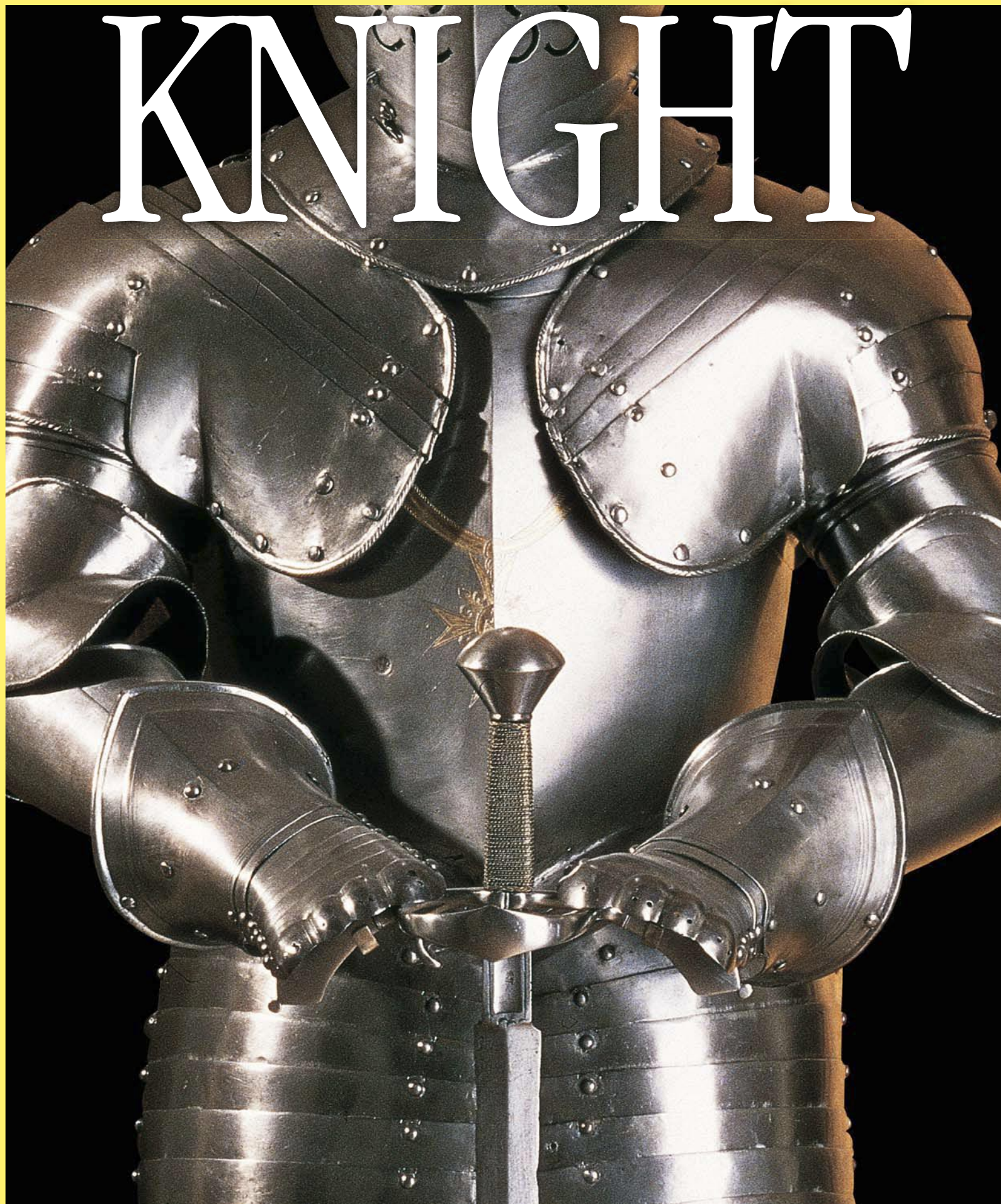




Eyewitness



KNIGHT



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Selection of medieval arrowheads



15th-century Flemish gold brooch



Late-medieval chamber pot



German fluted armor, c. 1520



16th-century French gilt wall sconce



Pricket candlestick, c. 1230

Eyewitness KNIGHT

Written by
CHRISTOPHER GRAVETT

Photographed by
GEOFF DANN



15th-century
German
serving knife



16th-century Italian parade helmet



German
halberd, late
16th century



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15th-century German shaffron (armor for horse's head)



Plaque from a tomb ornament showing a knight on horseback



15th-century Italian barbuta



15th-century spur



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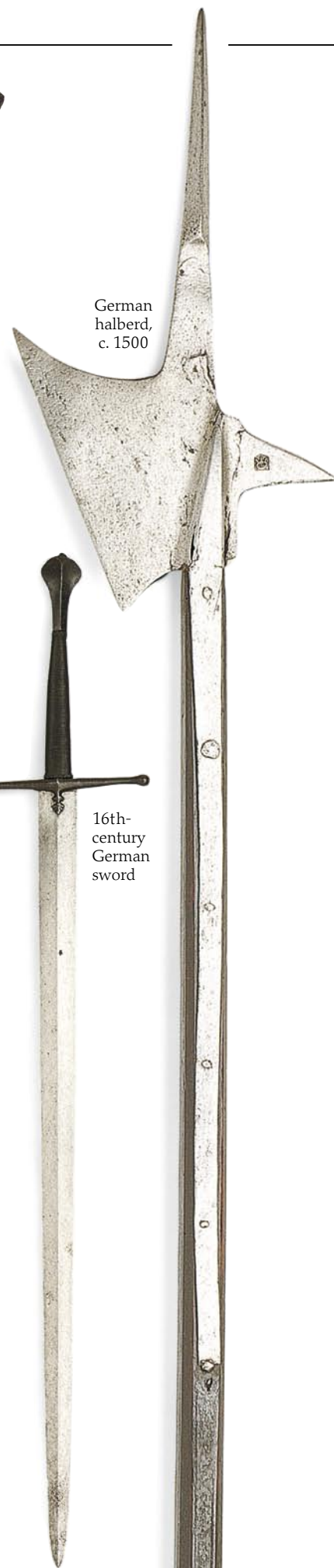
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German halberd,
c. 1500



16th-
century
German
sword

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Italian 16th-century
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tilting

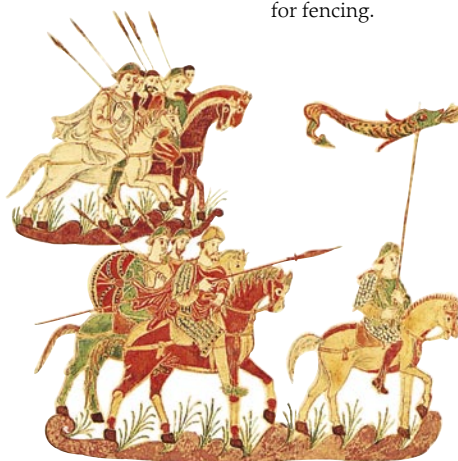
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The first knights

IN THE FOURTH CENTURY A.D. the Roman Empire and Europe was invaded by various barbarian tribes. One of the dominant groups were the Franks of central and western Europe, who gradually expanded their power until, in A.D. 800, their leader Charlemagne became Emperor of the West. Charlemagne and his forebears added to the number of horsemen in their army, giving land to mounted warriors. In the ninth century this vast empire broke up into smaller pieces. Local powerful lords and their mounted warriors offered protection to peasants, who became their serfs in return. In this feudal system, which first developed in western Europe, the lords themselves owed allegiance to greater lords, and all were bound by oaths of loyalty. All these lords, and some of the men who served them, were knights – warriors who fought on horseback. By the 11th century a new social order was formed by armored knights, who served a local lord, count, or duke, and were in turn served by serfs.



WINGED SPEAR *right*
Charlemagne's infantrymen (foot soldiers) usually carried spears with lugs that stuck out; but cavalymen (mounted warriors) may have used smaller versions as well. The lugs could keep a weapon from sliding down the shaft, or prevent the spear from getting stuck in an opponent's body. They might also have helped if the spear was used for fencing.



CAROLINGIAN CAVALRY
Under Charlemagne and his descendants, the Carolingians, armored horsemen became more and more important. In this late-ninth-century manuscript the men have coats of scale armor, helmets, shields, and spears. They now ride with stirrups for a more secure seat. The man in front carries a dragon banner shaped like a wind sock.



BARBARIAN HORSEMAN
When the Roman Empire broke up, many horsemen from eastern Europe arrived in the west. This plaque shows a Lombard horseman of about 600. Unlike a later knight, he uses no stirrups or saddle, but horsemen like him were the forerunners of the mounted warriors of later centuries.

Sharp, double-edged blade

Lug

Socket to insert shaft



CUTTING EDGE

The double-edged slashing sword was the most highly prized of weapons and the most difficult and expensive to make. At first only wealthy people, such as those with enough money for a war-horse, could afford one, so the sword became the typical weapon of the knight.

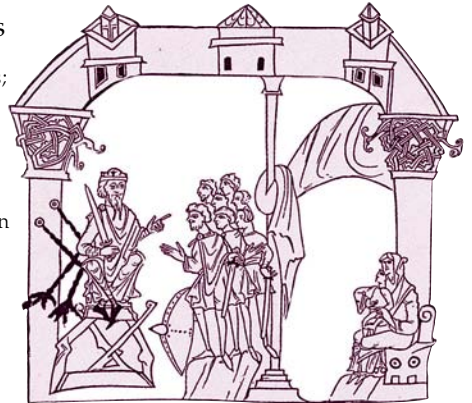


BATTLE AX

The ax with a flaring blade developed in northern Europe. It was especially popular with the Viking warriors from Scandinavia, who fought on foot, but lost favor with European mounted knights. Used by well-drilled infantry, it could prove lethal to horsemen, especially when mounted on a yard-long haft (handle) and swung in both hands.

KINGS AND NOBLES

The king and all his nobles were knights; there were also some knights who were not members of the nobility. In this 10th-century scene the king sits in close conference with his nobles, the men whose armed might kept him on the throne.



AX HEAD

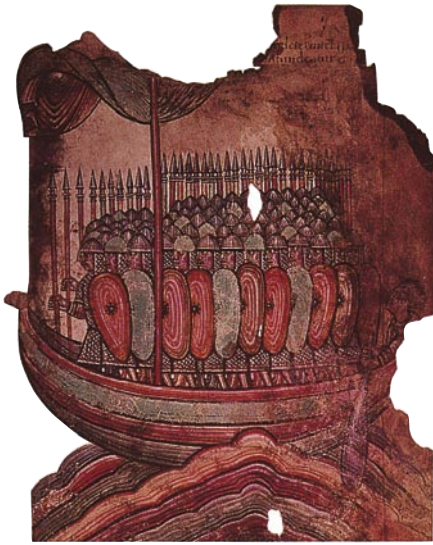
Many of the tribes living in Europe after the fall of Rome fought on foot. The increase in mounted warfare was gradual. This ax head is from Germany, where feudalism and knighthood were slow in coming.

CHARGE!

Cavalrymen sent their opponents flying in this Italian manuscript of 1028. All the knights wear coats of mail (pp. 12–13) with mail hoods and iron helmets. Straps around the horses' chests and hindquarters hold their saddles in place. These warriors look like tough, practical fighting men rather than the courteous knights of chivalry.



The Normans



SEABORNE ARMY

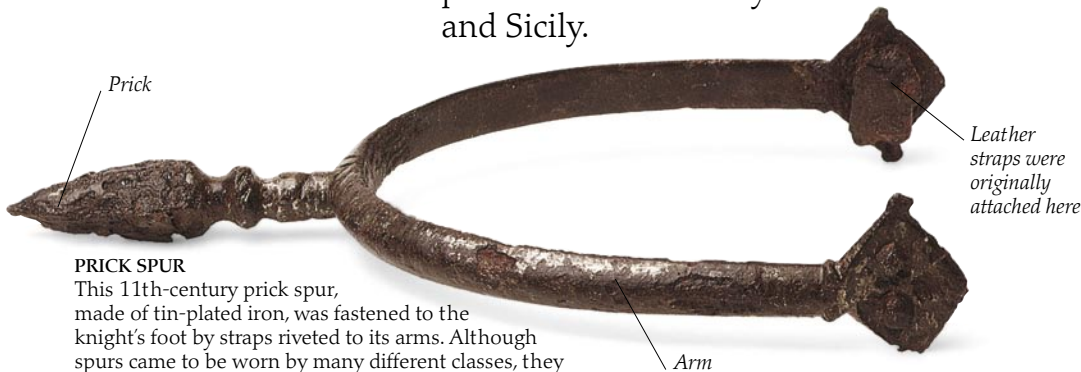
Grim-faced armored soldiers with spears and kite-shaped wooden shields stand ready on the deck of a ship. This French manuscript of the 11th century shows vessels like those used by the Normans to bring their invading army to England.

IN AN ATTEMPT to stop the Vikings from raiding his territory in northern France, Charles III of France gave some land to a group of the northern invaders in 911. Their new home was called Normandy (the land of the North-men), and their leader, Rollo, became its first duke. The Vikings fought on foot, but the Normans, as they became known, copied the French use of mounted knights and became formidable fighters. When King Edward of England died in 1066, his cousin, Duke William of Normandy, claimed he had been promised the English throne and invaded with an army. He defeated the new king, Harold, in battle near Hastings and brought the knight, his castle, and the feudal system to England. At about the same time, Norman adventurers invaded parts of southern Italy and Sicily.



SHIELDED FROM DANGER

This little 12th-century bronze figurine shows that knightly equipment changed only slowly after the Norman Conquest. The top of the helmet is tilted slightly forward, and the figure wears a long undergarment below the mailcoat, on which long sleeves are now common. The shield has a decorative metal boss in the center.



PRICK SPUR

This 11th-century prick spur, made of tin-plated iron, was fastened to the knight's foot by straps riveted to its arms. Although spurs came to be worn by many different classes, they were always especially associated with knights.



RIDING TO THE ATTACK *above*

This is a scene from the Bayeux Tapestry, an embroidery probably made within 10 years of the Battle of Hastings. It shows Norman knights, who wear mailcoats with hoods and iron helmets with noseguards. They carry kite-shaped shields, swords, and light lances. The small flags, called pennons, on the lances show them to be men of high rank.



SHIELD WALL

In this scene from the Bayeux Tapestry, the English defend their hilltop position at Hastings. Unlike the Normans, the English fought wholly on foot. The armor and weapons of the higher-ranking troops are similar to those of the Normans, except for the large two-handed ax at the shoulder of the left-hand figure. Bundles of javelins and a flying mace can be seen. Norman arrows have stuck in their shields.



SOLID FAITH

The Normans used stone not only to build some of their castles (pp. 22–23), but also for large cathedrals, abbeys, and churches throughout their newly conquered English kingdom. They used the Romanesque style of architecture, which was fashionable in Europe in the 11th and 12th centuries. Typical of the style were massive columns and rounded arches, seen here in the nave of Durham Cathedral.



SMASH HIT

This bronze mace may date from the 12th century; it has been given a modern haft. The molded knobs could break an opponent's bones under flexible chain mail.

Protrusion could pierce mail

Carving of mythical beasts



Charioteer

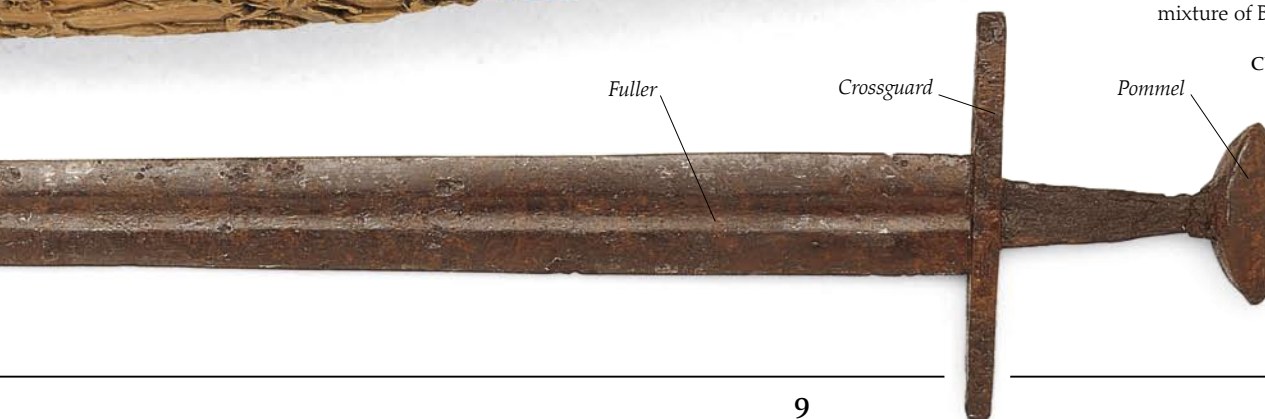
Wrestlers

BLOW YOUR HORN

Horns were used not only to make music and announce dinner, but to signal on the battlefield. This one, made in the 11th century from an elephant's tusk, comes from southern Italy. The Normans settled much of this area and conquered Sicily. Because it lay on profitable trade routes across the Mediterranean the island had a rich mixture of Byzantine and Muslim culture.

CUTTING EDGE

The sword was the knight's main weapon. This double-edged cutting sword has a groove, called a fuller, running down the blade to make it lighter. The brazil-nut-shaped pommel helps counter the weight of the blade and so makes the sword easier to handle.



Fuller

Crossguard

Pommel

Making a knight

WHEN HE WAS ABOUT SEVEN a boy of noble birth who was going to become a knight was usually sent away to a nobleman's household, often that of his uncle or a great lord, to be a page. Here he learned how to behave and how to ride. At about 14 he was apprenticed to a knight whom he served as a squire. He was taught how to handle weapons and how to look after his master's armor and horses; he even went into battle with the knight, helping him to put on his armor and assisting him if he was hurt or unhorsed. He learned how to shoot a bow and to carve meat for food. Successful squires were knighted when they were around 21 years old.



THE PAGE
Sons of noble families who were sent away at a very early age to the household of a great lord or to the king's court learned a variety of skills. They were trained to serve a knight, to attend noble ladies, and to learn the art of courtly manners and good behaviour.

Backplate



Breastplate



Holes to attach tassets (thigh pieces)

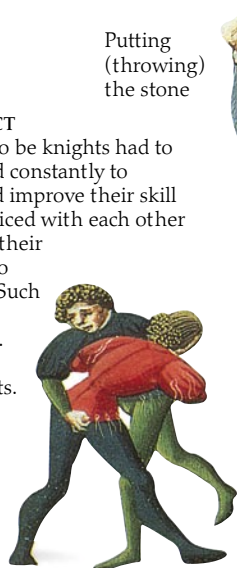
BOY'S CUIRASS

These pieces of armor of about 1600 are part of a full armor custom-made to fit a boy. Only rich families could afford to give their young sons such a gift.

PRACTICE MAKES PERFECT

Young men who wanted to be knights had to keep fit. So squires trained constantly to exercise their muscles and improve their skill with weapons. They practiced with each other and also sometimes with their knightly masters, who also needed to keep in shape. Such training was hard and not everyone could manage it. Those who did eventually went on to become knights. This 15th-century picture shows various ways the young men could train.

Wrestling



Putting (throwing) the stone



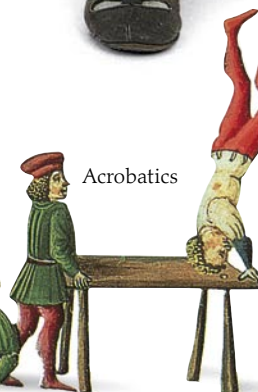
Throwing the javelin



Fighting with sword and buckler



Acrobatics

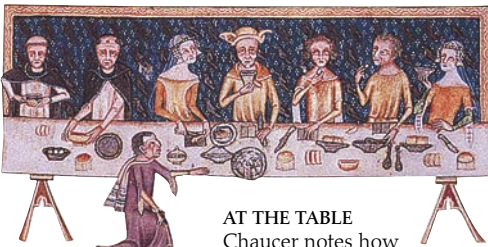


Fighting with quarterstaff





CHAUCEER'S SQUIRE *above*
Geoffrey Chaucer wrote his *Canterbury Tales* in about 1387. One of the stories is told by a squire, who is the lively son of a knight and about 20 years old. He could compose songs, dance, draw, and write. He was also a good rider and knew how to joust. Other stories show that some squires were not as well-mannered as Chaucer's. Sometimes they behaved like thugs. In Boston, England, in 1288, two gangs of squires, pretending to hold a squires' tournament, burned down half the town.



AT THE TABLE
Chaucer notes how the squire carved the meat in front of his father at the dining table. Knowing how to carve properly was a skill taught to these sons of noble families as a part of their training.



JOUSTING PRACTICE *above*
This could be done with a wooden structure called a quintain, sometimes shaped like a soldier. After striking the shield at the end of one swinging arm the rider had to pass by quickly to avoid the swinging weight.

THE SQUIRE

The word "squire" comes from the French word *écuyer*, which meant "shield-bearer." In the 11th and 12th centuries many squires seem to have been servants of a lower social class, but later the sons of noble families became squires before being knighted. In the 13th century becoming a knight was so expensive that many young men tried to avoid actually being knighted and remained squires. Later "squire" came to mean a gentleman who owned land.



AT THE PEL
Squires could practice against a pel, or wooden post. Sometimes they were given weapons double the weight of those used in battle; this got them used to weapons, and developed their muscles.



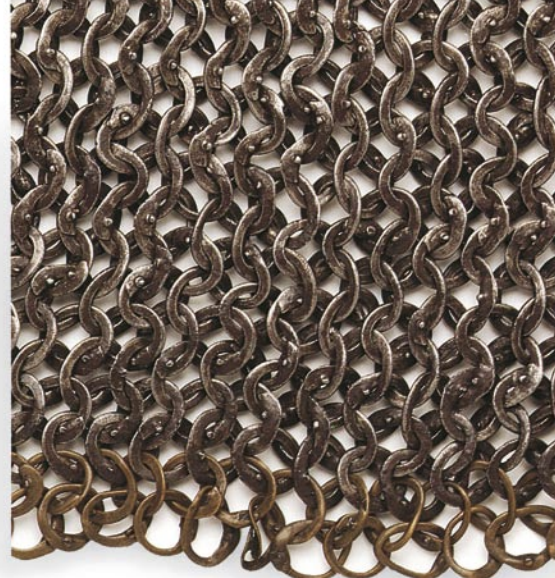
DUBBING

A squire was finally made into a knight at the ceremony of dubbing. This was originally a blow to the neck with the hand; by the 13th century the blow was replaced by a tap with the sword. The knight's sword and spurs were fastened on, and celebrations might follow when he could show off his skills. Another knight, often the squire's master or even the king, performed the dubbing.

Thigh-length leather boots

Iron, iron, everywhere

THE MAIN BODY ARMOR worn by early knights was made of mail, consisting of many small, linked iron rings. During the 12th century knights started to wear more mail: their sleeves got longer and mail leggings became popular. A padded garment called an aketon was also worn below the mail to absorb blows. In the 14th century knights increasingly added steel plates to protect their limbs, and the body was often protected further with a coat-of-plates, made of pieces of iron riveted to a cloth covering. By the 15th century some knights wore full suits of plate armor. A suit weighed about 44-55 lb (20-25 kg), and the weight was spread over the body so that a strong man could run, lie down, or mount a horse unaided in his armor. Stories of cranes being used to winch knights into the saddle are pure fantasy. But armor did have one major drawback. The wearer quickly became very hot.



MAIL

In this piece of mail, each open ring is interlinked with four others and closed with a rivet. A mail coat weighed about 20-31 lb (9-14 kg), and most of the weight was taken on the knight's shoulders. As mail was flexible, a heavy blow could cause broken bones or bruising.



KNIGHTLY PLAQUE

This mounted knight of the 14th century has a helm fitted with a crest. This helped to identify him in battle. However, by this time headgear like this was losing popularity in favor of the basinet and visor.

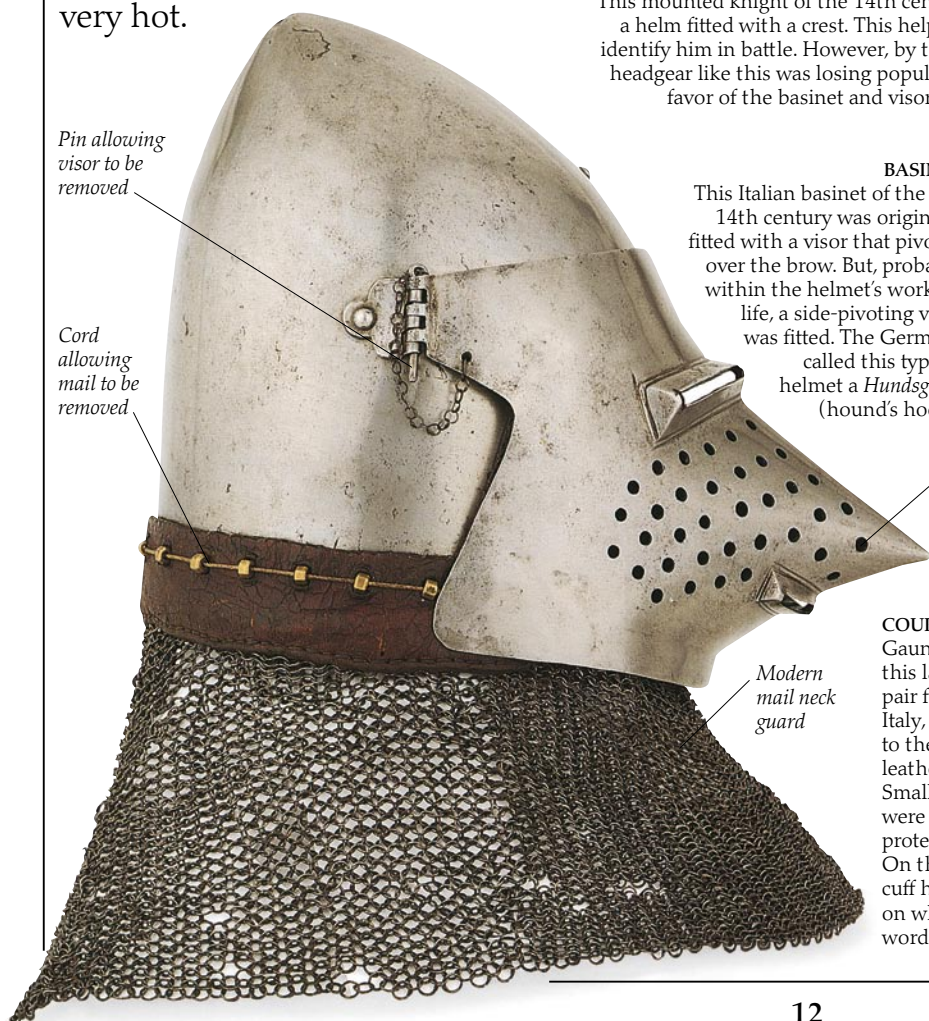


MAIL MAKER

No one knows exactly how mail was made. This 15th-century picture shows an armorer using pliers to join the links. Garments were shaped by increasing or reducing the number of links in each row, rather like stitches in modern knitting.

Pin allowing visor to be removed

Cord allowing mail to be removed



BASINET

This Italian basinet of the late 14th century was originally fitted with a visor that pivoted over the brow. But, probably within the helmet's working life, a side-pivoting visor was fitted. The Germans called this type of helmet a *Hundsgugel* (hound's hood).

Ventilation holes

Modern mail neck guard

COURTLY GAUNTLETS

Gauntlet plates, like this late-14th-century pair from Milan, Italy, were riveted to the back of a leather glove. Smaller plates were added to protect the fingers. On these plates each cuff has a band of brass on which is written the latin word *AMOR*, love.



SALLET
Light horsemen, who might not wear armor on their lower legs, often wore helmets like this German sallet of 1480-1510. It was originally fitted with a chin strap.



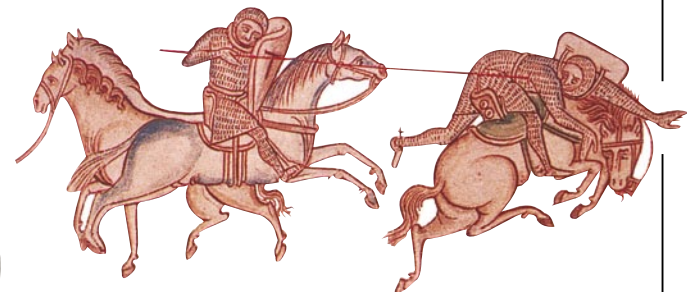
THE COMING OF PLATE ARMOR
The knight on the left dates from about 1340. Over his padded aketon he wears a mail coat and over that a coat-of-plates. His surcoat is short and his legs have some plate armor. The knight on the right dates from about 1420 and has full plate armor.



BARBUTE
Italian barbutes, like this one of about 1445, look rather like ancient Greek Corinthian helmets. The rosette-headed rivets secured a canvas lining band inside, to which was sewn a padded lining. Rivets lower down originally held a leather chin strap to keep the helmet from being knocked off.



GAUNTLET
This shows the long, fluted style popular for German "Gothic" armor of the later 15th century. The missing finger and thumb plates would be riveted to a glove attached inside. Plate armor like this gave better protection than mail, because it was solid and did not flex when struck by a weapon.



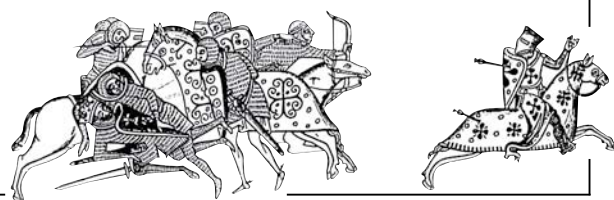
UNHORSED
Fully mailed knights needed to protect themselves against heavy blows from lances or maces. This picture, drawn by Matthew Paris in the first half of the 13th century, shows the large shields they used. By 1400, thanks to the effectiveness of plate armor, shields had become much smaller.



THE MAILED KNIGHT
This knight of about 1250 wears a cloth surcoat over his mail, perhaps in imitation of Muslim dress seen on crusade (pp. 54-55). His mail sleeves are extended into mittens, with leather palms to give a good grip.



Pointed cuff
Center plate
Articulated plates
Shaped knuckle plate



Fashion in steel

BY THE 15TH CENTURY, knights were protecting themselves with full suits of plate armor. The armor's smooth surface deflected the edges and points of weapons. This reduced the impact of any blows but still allowed the armor to be made reasonably light. Plate armor was often made to imitate civilian fashions. Some armours were partly painted black, both to preserve the metal and as a decoration. Or armor could be "blued" by controlled heating of the metal. Some pieces were engraved with a pointed tool, and from the 16th century on, designs were often etched into the metal with acid. Gold plating, or gilding, was sometimes used to embellish borders or bands of decoration and, in some cases, entire armors.

Shoulder defense made from several articulated (individually moving) plates

Besague to guard the armpit

"Bellows" visor, so-called because of its shape

"Wing" on the poleyn, or knee guard, protected the wearer from side cuts

PUCKER SUIT
The ridges in this German armor of about 1520 imitate the pleated clothing of the time. The style is called "Maximilian" after the German emperor, although he had no personal connection with it. It combines the rounded Italian style with the German fluted decoration of the 15th century. This form of armor remained popular until about 1530. This suit is made up of surviving pieces from several similar armors of the same period.

Blued, etched, and gilt wings

Embossed, etched, and gilt dolphin's mask placed over fish-tailed scrolls

Burgonet

OPEN TO THE AIR
The burgonet was an open-faced helmet that allowed more air to reach the face than the close-helmet below. This example, with its decoration imitating the art of ancient Rome, was intended for use in parades rather than for warfare. It was made in Augsburg, Germany, in about 1520.

Cherubs' head

Visor pivots at the same point as the rest of the face guard

Peg for lifting visor

Figures in Roman armor

Sleeping lion

PROTECTING THE FACE

A close-helmet is one with a visor to protect the wearer's face. This one was probably made in France in about 1575. It is covered with embossed decoration, which was usually added to armor made for parades.

Close-helmet



Gorget plates attached to the buffe protect the throat

Large pauldrons made of several strips of steel joined internally by leather straps, which let them move

Lance rest helped support the weight of the lance and keep it from being rammed through the armpit on impact

Slim plates on this falling buffe may be lowered over one another to allow more air to reach the face

Reinforcing breast (plackart) attached to the breastplate to increase protection against firearms

Small plates on the gauntlets give complete freedom of movement to the hand

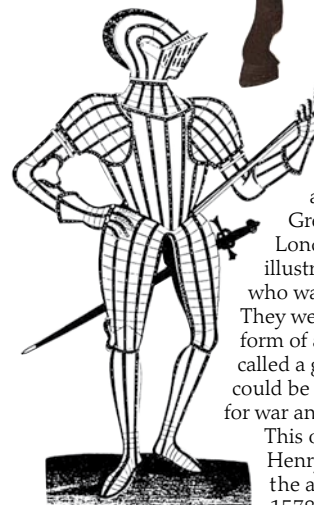
LATEST FASHION

This armor was made for Lord Buckhurst in about 1587. It is a product of the workshops in Greenwich set up by Henry VIII. The breastplate has followed the fashion in becoming more and more pointed at the waist until, as here, the full shape known as a peascod is formed. The bulging hips allow for thick underwear worn beneath. The burgonet has a triple-barred face-guard behind a removable buffe.

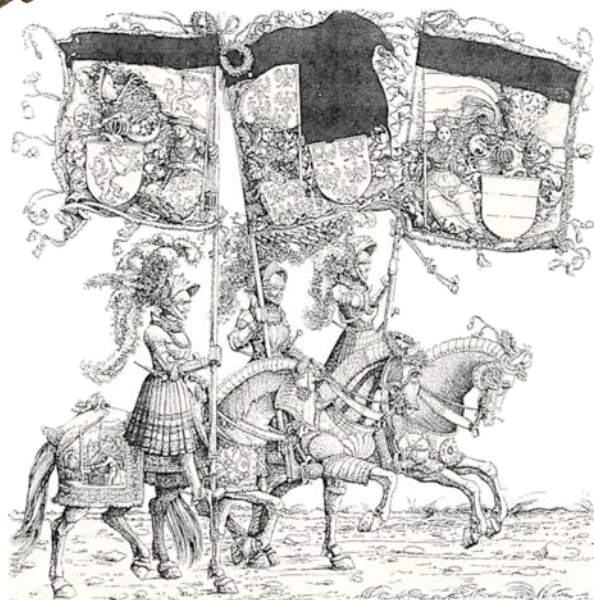
Flexible sabaton leaves the sole exposed so the shoe beneath does not skid

Poleyn has plates above and below, which allow the knee to bend without exposing the cloth beneath

TRIUMPHAL ENTRY
This picture of King Louis XII of France entering Quenes was painted about 1510. The colored cloth skirts popular at the time were called bases. The king's helmet is fitted with a heraldic crest.



MASTER DRAWING
Jacob Halder, who was master armourer at Greenwich, near London, produced illustrations for people who wanted armor made. They were often in the form of a set of pieces called a garniture which could be made into armors for war and tournament. This one was for Sir Henry Lee, master of the armouries from 1578 to 1610.

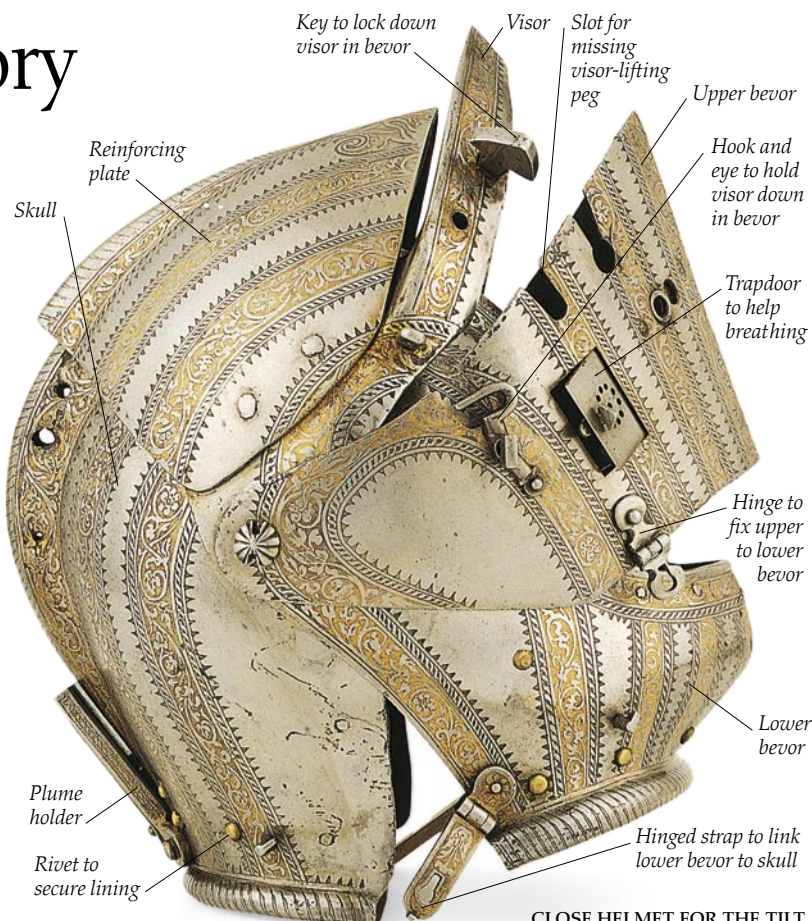


ON PARADE

Three knights ride in procession, from the early 16th-century *Triumph of Maximilian*. They carry enormous parade banners representing three provinces of his Hapsburg empire. The horses wear plate armor; the animal in the middle even has pieces to guard his upper legs – such items were very rare.

Armor, the inside story

PEOPLE OFTEN THINK that plate armor is clumsy and stiff. But if it were, it would be little use on the battlefield. In fact, a man in armor could do just about anything a man can do when not wearing it. The secret lies in the way armorers made the plates so that they could move with each other and with the wearer. Some plates were attached to each other with a rivet, which allowed the two parts to pivot (turn) at that point. Others were joined by a sliding rivet, one part of which was set not in a round hole but in a slot, so the two plates could move in and out. Internal leather connecting straps, called leathers, also allowed this type of movement. Tube-shaped plates could also have “flanged” edge, or projecting rim, to fit inside the edge of another tubular plate so that they could twist around.



CLOSE HELMET FOR THE TILT

This etched North Italian helmet of about 1570 has a reinforcing plate riveted to the skull or bowl. The visor fits inside the bevor, which is divided into upper and lower parts. The visor and the two parts of the bevor all pivot at the same point on each side of the skull and can be locked together.



HOT WORK

This armorer has heated a piece of metal in a furnace to soften it and is hammering it into shape over an anvil set in a tree trunk. A bellows forces air over the fire to raise the temperature.



MITTEN GAUNTLET

This German gauntlet of about 1515 allows the hand to be closed into a fist. The finger plates are connected by a rivet at each end so the plates pivot down as the fist closes. Other rivets around the edges held a leather glove inside, to which the hinged thumb plate was attached.





Modern replacement
tab to lace to torso

CUISSE AND POLEYN

This is an early-16th-century defense for the thigh (cuisse) and knee (poleyn) of the right leg. The back of the thigh was usually left unprotected. The cuisse is laced to the wearer's torso, and holes at the lower edge take studs that stick out from the lower leg armor.

Cuisse

Wing to
guard
against
side cuts

Rivet
for
internal
strap

Rivet allows
plates to pivot

Side wing

Keyhole slot to
attach stud of
lower leg defense

Connecting leather
(modern replacement)

Buckle to fasten poleyn
around back of knee

Modern leather
strap to buckle
around thigh

Inside of cuisse



SHAPING UP

This early-16th-century armorer is shaping cold metal using an anvil. He could also use curved formers set in the tree trunk on which to place the metal while hammering, to give the piece its required shape.

Roped
inward
turn

Recessed
border

Medial
rib

Poleyn

Roped
rib

Pierced
hole for
stud of
lower leg
defense

Upper cannon
of vambrace

Turner

Modern
strap

Sliding rivet

Articulating rivet

Pauldron

PAULDRON AND VAMBRACE

This late-16th-century right-arm defense protects the whole arm from wrist to shoulder. The shoulder defense (pauldron) is made of several plates (lames) connected by sliding rivets and internal leathers, so they all move over one another to a certain extent. The pauldron is connected to the upper arm (vambrace) by a turner, which allows the arm to twist outward. Leathers connect the upper arm, elbow, and lower arm. The springy metal of the lower arm keeps the stud firmly in the hole.



AT THE READY
The double-edged cutting sword, shown unsheathed in this 13th-century tomb effigy, could tear mail links apart and drive them into a wound.

Arms and the man

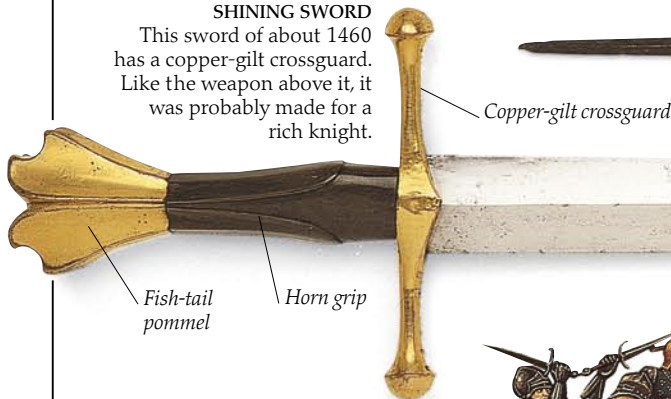
THE SWORD WAS THE most important knightly weapon, a symbol of knighthood itself. Until the late 13th century the double-edged cutting sword was used in battle. But as plate armor became more common more pointed swords became popular, because they were better for thrusting through the gaps between the plates. The mace, which could concuss an opponent, also became more popular. Before drawing his sword or using his mace, however, a mounted knight usually charged at his opponent with his lance lowered. Lances increased in length during the medieval period and, from about 1300, began to be fitted with circular vamplates to guard the hand. Other weapons such as the short ax could be used on horseback, while long-handled staff weapons, held in both hands, could be used on foot.



THE COUCHED LANCE
Early 14th-century knights charge in formation with lances "couched" under their arms. To keep their line, they rode at a trot before charging as they neared the enemy.

SHINING SWORD

This sword of about 1460 has a copper-gilt crossguard. Like the weapon above it, it was probably made for a rich knight.



Copper-gilt crossguard

Fish-tail pommel

Horn grip

BLOODY BUSINESS

When a dagger was used the opponent was often grasped around the neck before the fatal blow was struck. This often meant stabbing at the face or, as in this late 15th-century example, cutting the throat. Like sharply pointed swords, such daggers could also pierce mail.



FLANGED MACE

A flanged mace has ridges sticking out from the head to concentrate the force of the blow. Maces like this may have been used as early as the 11th century but became more popular in the 14th century as more plate armor was worn. This example has a bronze head mounted on a modern haft. An iron ball attached to a haft by a chain was called a flail; this was usually used on foot.

Flange

Modern haft

Maker's mark



Fish-tail pommel

Modern cord grip

Diamond-section blade

GREAT SWORD

Two-hand swords were large versions of the ordinary sword and were swung in both hands to deliver a powerful blow. This one, possibly made in England, is from about 1450. Large swords began to become popular in the 13th century; a knight would often hang one from his saddle in addition to his normal sword.

Diamond-profile blade

Cross-guard

Modern
cord grip

Wheel pommel
with cap

DEATH OR GLORY

Two riders slammed together at about 60 mph (96 km/h); this made the pointed lance lethal. In this early-15th-century picture a knight's lance has passed by his opponent's shield and punched through his armor. The figure on the left has a heavy-bladed cutting sword called a falchion. A pole-ax, a staff weapon used on foot, lies on the ground.



GETTING THE POINT

On this sharply pointed war sword of the second half of the 14th century, the old-style blade with a central groove or fuller has been replaced by a stiffer one with a diamond-shaped profile. This assisted the thrust. The acute point could burst apart the links of a piece of mail.

WEAPON OF RANK

This sword was probably made for a wealthy person. Dating from the late 15th century, it has a sunken hollow in the pommel that would have held a plaque with the owner's coat of arms.

Fig-shaped
pommel

Hollow for
small shield



CUTTING A PATH

This early 14th-century manuscript shows rather pointed swords but still with sharp cutting edges. Surviving skeletons show that the force of a blow could cause terrible injuries and cuts to the bones.

SHORT AX

Knights sometimes wielded two-handed axes, but the smaller, single-handed variety was easier to use on horseback. This 14th-century example, mounted on a modern haft, has the remains of long iron langets which ran down the haft to stop the ax head being cut off. The back is extended to form a beak.

Part of
langet

Single-edged blade

Remains of gilt decoration

Rondel

DAGGER

Knights did not use daggers very much until the 14th century. This is a late-15th-century rondel dagger, so-called because of the protective iron discs at either end of the grip. It was the typical knightly dagger and was carried in a decorated leather sheath.



FIT FOR A KING

An early-14th-century miniature shows the king of England on his war-horse. The richly decorated covering, or trapper, could be used to display heraldic arms and might be padded for extra protection. Some were even made of mail. Notice the "fan" crest.

GREAT HORSE

A destrier, or "great horse," wears armor on its head, neck, and chest, the latter partly covered in decorative cloth. The knight in this 15th-century picture wears long spurs and shows the straight-legged riding position. He uses double reins, one of which is highly decorated.



On horseback

THE HORSE was an expensive but vital part of a knight's equipment. Knights needed horses for warfare, hunting, jousting, traveling, and carrying baggage. The most costly animal was the destrier, or war-horse. This was a stallion about the size of a modern heavy hunter. Its deep chest gave it staying power yet it was also nimble. Knights prized war-horses from Italy, France, and Spain. In fact the Spanish Andalusian is more like a war-horse than any other modern kind is. By the 13th century, knights usually had at least two war-horses, plus other horses

for different tasks. The courser was a swift hunting horse, though this name was sometimes applied to the war-horse, with "destrier" used for the jousting horse. For travel, knights often used a well-bred, easy-paced mount called a palfrey. Sumpter horses carried baggage.



Etched and gilt decoration

Separately moving metal plates

"Eye" for leathers

Tread

MINIATURE GOAD

A knight wore spurs on his feet, and used them to urge on his horse. This 12th- or 13th-century prick spur is made of tin-plated iron. The two leather straps that passed over and under the foot were riveted to the ends of each spur arm.



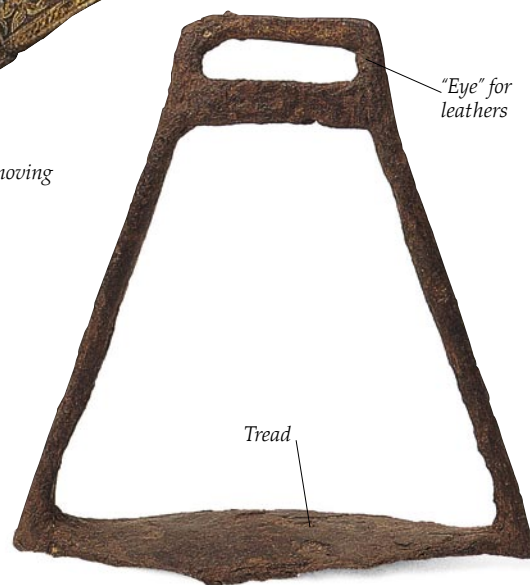
Prick or goad

Rowel



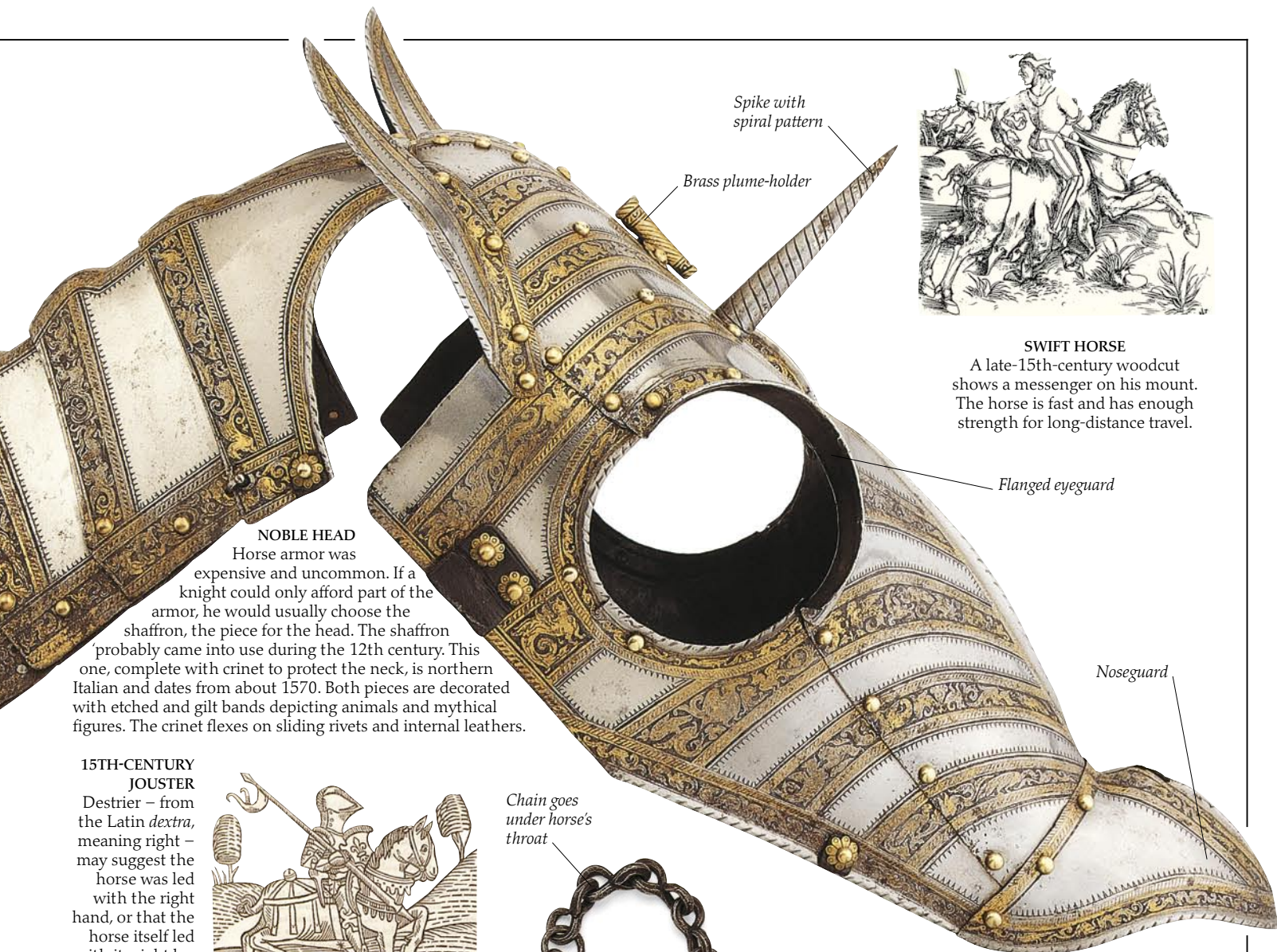
ROWEL SPUR right

Spurs with a rotating spiked rowel on the end of the arm had replaced prick spurs by the early 14th century. This decorated copper-gilt example is from the second half of the 15th century.



FIRM SEAT

Iron stirrups like this one dating from the 14th century were worn with long straps so the knight was almost standing in them. This, together with the support of high saddle boards at front and rear, meant he had a very secure seat from which to fight.



SWIFT HORSE

A late-15th-century woodcut shows a messenger on his mount. The horse is fast and has enough strength for long-distance travel.

NOBLE HEAD

Horse armor was expensive and uncommon. If a knight could only afford part of the armor, he would usually choose the shaffron, the piece for the head. The shaffron probably came into use during the 12th century. This one, complete with crinet to protect the neck, is northern Italian and dates from about 1570. Both pieces are decorated with etched and gilt bands depicting animals and mythical figures. The crinet flexes on sliding rivets and internal leathers.

15TH-CENTURY JOUSTER

Destrier – from the Latin *dextra*, meaning right – may suggest the horse was led with the right hand, or that the horse itself led with its right leg so that if it swerved it would move away from an opponent.



Chain goes under horse's throat



Decorated metal boss

Ring for rein

Poll plate

FROM THE HORSE'S MOUTH

Curb bits similar to this one were used by military riders from the later Middle Ages to the 19th century. Leverage from the long arms put pressure on the horse's mouth and gave good control.

SHAFFRON right

This German shaffron from the 1460s has a poll plate, attached by a brass hinge, to protect the top of the horse's head. The central spike and rondel are missing. The rivets originally held an internal lining.



MUZZLE

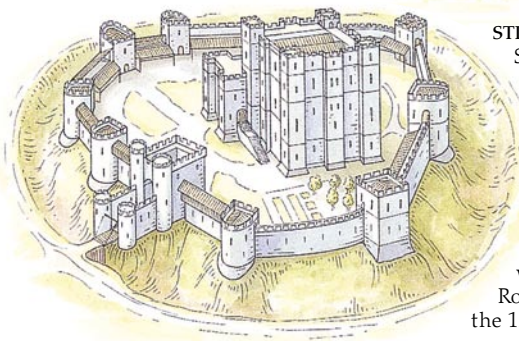
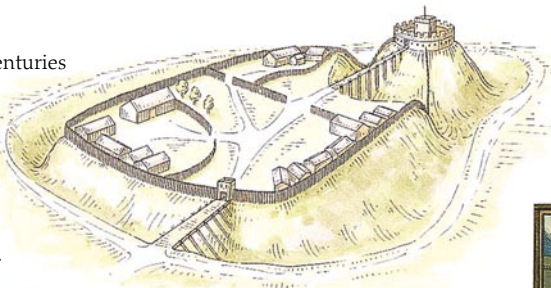
A steel frame is decorated with openwork panels and chiseled bars. At the top, a German inscription reads "As God wills, so is my aim." Below is a crowned imperial eagle and the date 1561. Two lizards support the panel. The letters at the bottom probably indicate the owner's name.

The castle

A CASTLE COULD BE a lord's private home and his business headquarters, as well as a base for his soldiers. The first castles probably appeared in northwestern France in the ninth century, because of civil wars and Viking attacks. Although some early castles were built of stone, many consisted of earthworks and timber walls. But slowly knights began to build castles of stone and later brick, because these materials were stronger and more fire-resistant. In the late 15th century, more settled societies, demand for comfort, and the increasing use of powerful cannons meant that castles became less important. Some of their military roles were taken over by forts, defended gun platforms controlled by the state.

MOTTE AND BAILEY

The castles of the 10th to 12th centuries usually consisted of a ditch and rampart with wooden fences. From the 11th century on, many were also given a mound called a motte, a last line of defense with a wooden tower on top. The bailey, or courtyard, below it held all the domestic buildings.

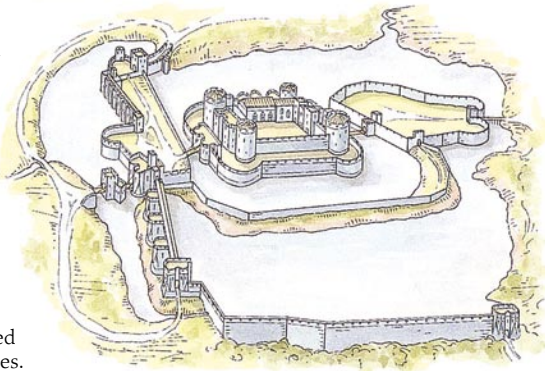


STRENGTH IN STONE

Stone donjons, or keeps, became common in the late 11th and 12th centuries. The larger ones could hold accommodation for the lord and his household. The bailey was by now often surrounded by stone walls with square towers. Round towers appeared in the 12th century.

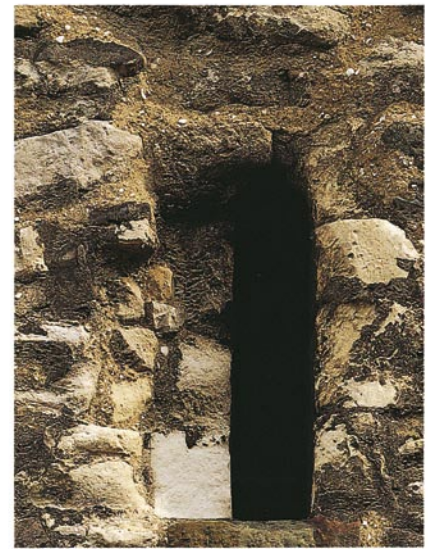
RINGS OF DEFENSE

Concentric castles, which were first built in the 13th century, had two rings of walls, one within the other. This gave two lines of defence. The inner ring was often higher to give archers a clear field of fire. Some old castles with keeps had outer rings, added later; these gave yet another line of defence. Sometimes rivers were used to give broad water defenses.



CRACKING CASTLE

Sometimes wooden fences on the motte were replaced by stone walls, forming a shell keep. Occasionally a stone tower was built on a motte, but the artificial mound was not always strong enough to take the weight. The 13th-century Clifford's Tower in York, England, has cracked as a result.



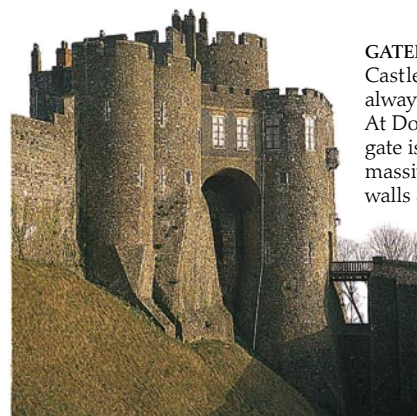
NARROW SLIT

Windows near the ground were made very small to guard against enemy missiles or soldiers climbing through. Such windows were narrow on the outside but splayed on the inside to let in as much light as possible.



MEN AT WORK

Stone castles cost a fortune to build and could take years to complete. The lord and the master mason chose a strong site and plan. Stone had to be brought in specially. In addition, large amounts of lime, sand, and water were needed for the mortar. The materials and work force were normally provided by the lord.



GATEHOUSE

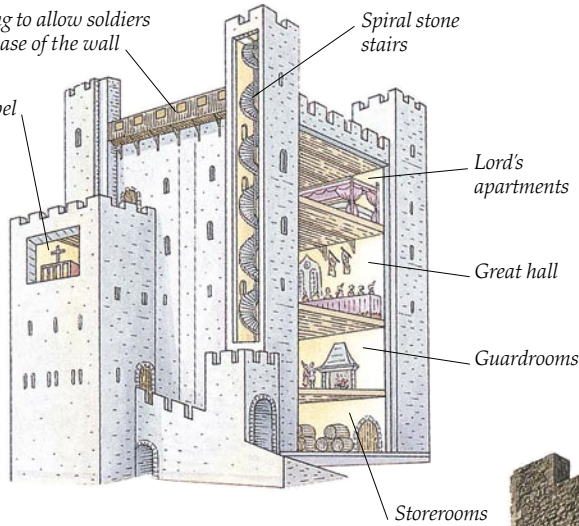
Castle gatehouses were always strongly fortified. At Dover, England, the gate is flanked by two massive round towers. The walls are splayed at the base; the thicker masonry helps to protect them against mining. There is also a deep dry ditch to obstruct attackers.

Wooden hoarding to allow soldiers to overlook the base of the wall

Chapel

INSIDE A KEEP

A large keep had enough space to house the lord and his retinue. The basement was used for storage, but it is uncertain how the other floors were used, and usage probably changed from keep to keep. Some floors were used for entertaining. Others might provide private quarters for the lord's family. Small keeps were probably watchtowers.



GOOD SITE

This view of the keep at Rochester shows how it is surrounded by strong outer defensive walls.



A GREAT TOWER

The keep, or donjon (from which comes the English word dungeon, an underground prison), had strong walls. At Rochester, begun in 1087, they are 12 ft (3.7 m) thick at the base and the tower is 113 ft (34 m) high to the parapets. The entrance was always on the first floor and was often protected by a forebuilding. There was a well in the basement, to provide water if the garrison was trapped in the tower during a siege.

Merlon or battlement

Corner turret

Buttress to strengthen wall

Large upper window later made even larger

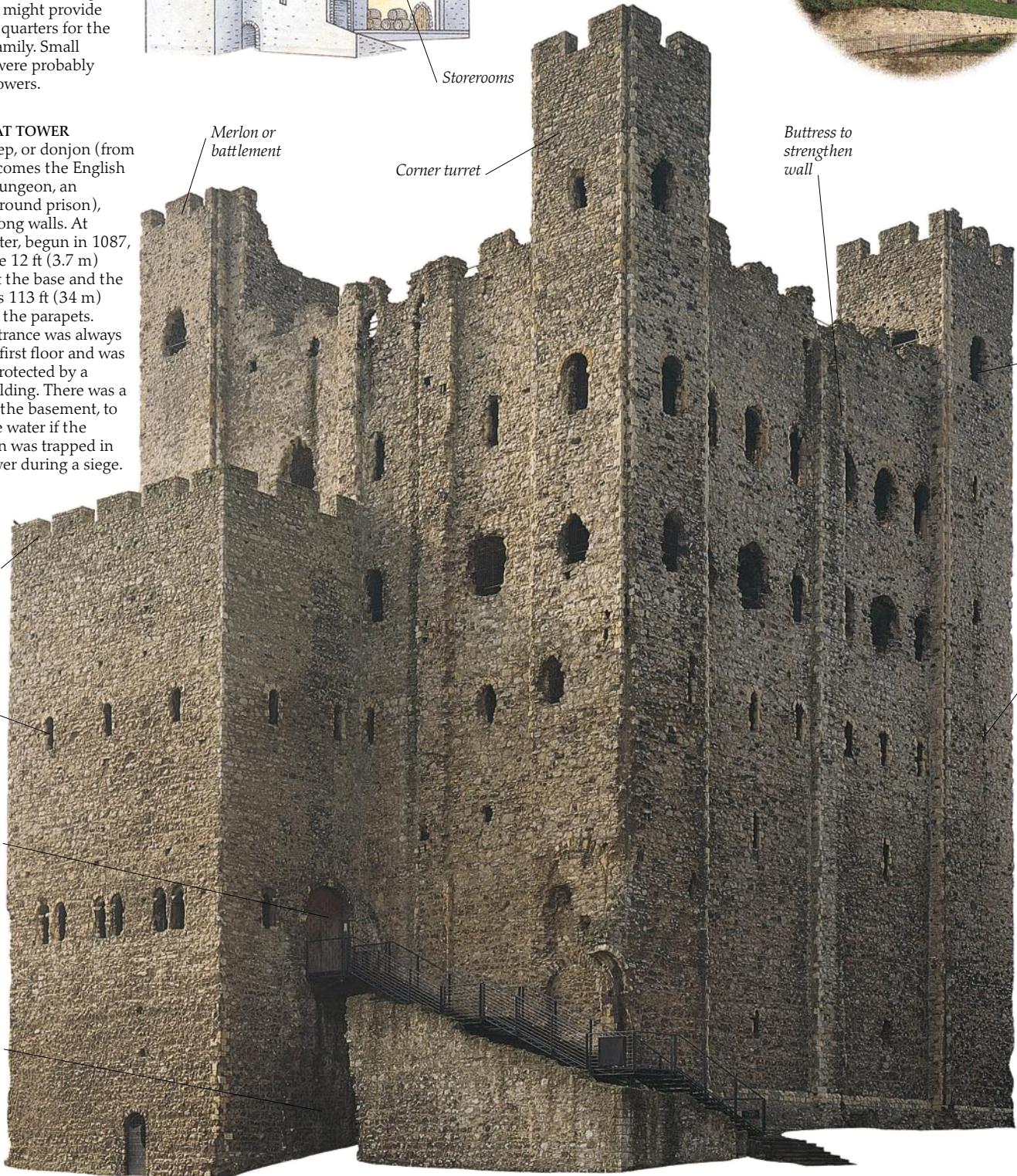
Merlon on fore-building

Chapel window

Fore-building with entrance doorway

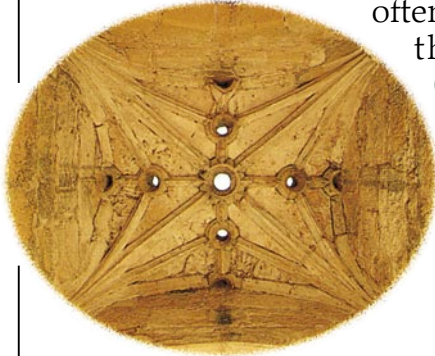
Draw-bridge pit

Narrow slit on lower level, to protect against enemy missiles



The castle at war

CASTLES WERE BUILT as defense against enemy attacks. The first obstacle for the enemy was a ditch all the way around the castle, which was sometimes filled with stakes to slow a man down and make him an easy target. Moats – ditches that were often filled with water – were less common: they kept attackers from mining (burrowing) under the walls. Towers juttied out from the walls so that defending archers could shoot along the walls to repel any attackers. Small gates allowed the defenders to rush out and surprise the enemy. The castle was also used as a base from which knights rode out to fight an enemy or ravage his lands.



VAULTED CEILING

There are holes built into the stone vaulted ceiling of the castle gatehouse. These allowed people on the floor above to pour water down to put out fires, or possibly to drop stones or boiling water onto the heads of attackers.

Gap (or crenel), through which defenders could shoot

Merlon to protect defenders against missiles

Round flanking tower; the shape leaves no corners for a battering ram or miners

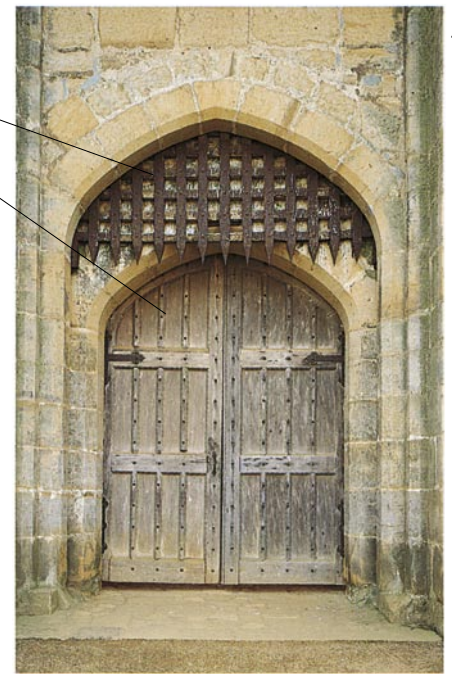
High turrets gave clear views of approaching enemies

Machicolations along gate tower

Battlement on section of curtain wall

Iron-clad wooden portcullis

Wooden doors barred from behind



GATEHOUSE

The gatehouse was always strongly defended, as it was thought to be a weak spot. Usually a wooden lifting bridge spanned the ditch and an iron gate called a portcullis could be lowered to form a barrier.



OVER THE WALLS

This early 14th-century picture shows the 11th-century Crusader Godfrey of Bouillon attacking fortifications.

His men are using scaling ladders, which was always dangerous because the defenders would try to push them away. Archers provide covering fire.



EMBRASURE

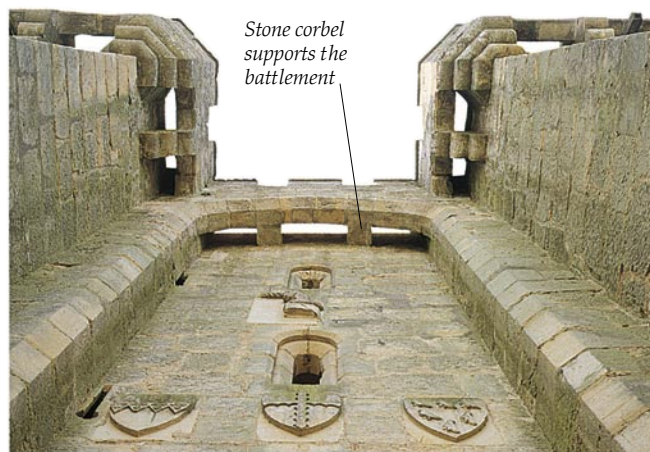
An embrasure was an alcove in the thickness of the wall, with a narrow opening, or "loophole," to the outside. This allowed defenders to look and shoot out without showing themselves. In this example, the rounded lower part of the loophole is designed for guns, used more and more in warfare by the time this castle was built.



FLANKING TOWERS

This picture was taken looking up the front of the castle. Flanking towers jut out on either side to protect the gate.

The battlements are thrust forward (machicolated) so that they overhang the walls. Boiling water or hot sand could be poured through the holes to hurt the attackers below. The holes could also be used to pour cold water, to put out fires.



Stone corbel supports the battlement



AT SIEGE

Both the attackers and the defenders of this castle are using siege engines (pp. 26–27) to hurl missiles at each other.

KNIGHTLY STRONGHOLD

Bodiam Castle in Sussex, England, was built in 1385 by Sir Edward Dalyngrigge amid fears of a French invasion. It has a single stone curtain wall with round towers at the corners and is surrounded by a broad moat to protect the occupants. To guard against possible treachery among the defending soldiers, there are no connecting doors between their quarters and those of the lord.



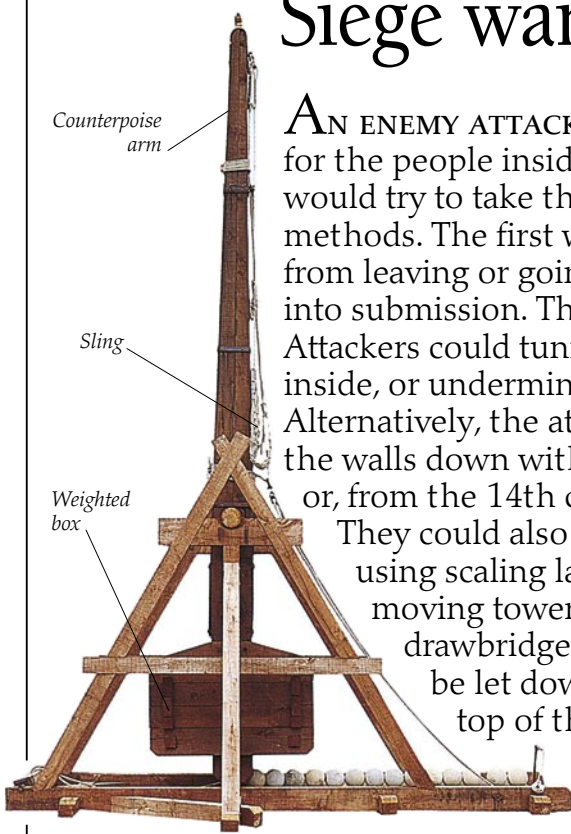
Turret or watchtower

Lancet window to let in light but keep out missiles

Siege warfare

AN ENEMY ATTACKING a castle would make a formal demand for the people inside to surrender. If this was rejected, he would try to take the castle by siege. There were two methods. The first was to surround the castle, keep people from leaving or going in, and starve the defenders into submission. The second was to use force. Attackers could tunnel under the wall and come up inside, or undermine the wall and bring it down. Alternatively, the attackers could try to break the walls down with battering rams, catapults, or, from the 14th century on, cannon.

They could also try to get over the wall using scaling ladders or a moving tower fitted with a drawbridge that could be let down on the top of the wall.



TREBUCHET

The trebuchet was first used in Europe in the 12th century. It worked on the principle of counterpoise: There was a pivoting wooden arm with a heavy weight at one end and a sling, containing a missile such as a stone, at the other. As the weight dropped, the sling flew up, launching the missile toward the castle. Some trebuchets had arms about 60 ft (18 m) long. On average they could probably hurl stones of about 100-200 lb (45-90 kg) up to 980 ft (300 m).

PULLING YOUR WEIGHT

The traction trebuchet worked in the same way as the counterpoise version, except that the arm didn't bear a heavy weight but instead was moved by a team of men hauling on ropes. This meant that the machine was smaller than the counterpoise type and could not throw such large stones. But it could be reloaded more quickly. The sling was shorter, and a man held it out as the arm began to rise. He had to remember to let go!



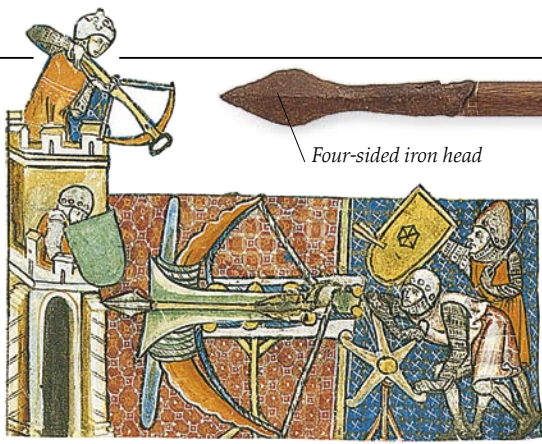
ASSAULT

Besiegers attack a fortress with scaling ladders while crossbowmen and handgunners cover the assault. The attackers are also using a cannon to blast holes in the stonework. More and more cannon were used in the 15th century to frighten defenders. Some siege guns were enormous.



OLD AND NEW

A trebuchet towers over a gunner and his small cannon in this early-15th-century picture.



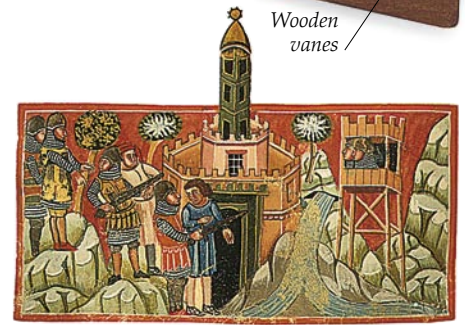
Four-sided iron head

Modern wooden shaft

Ballista bolt

BIG BOW left

Siege bows or ballistas were large, mounted crossbows that shot oversized bolts like the one above. The large bow arm was winched back. The ballista was really a weapon for use against people and may have been used to cover gateways, to keep defenders from coming out and fighting the attackers.



Wooden vanes

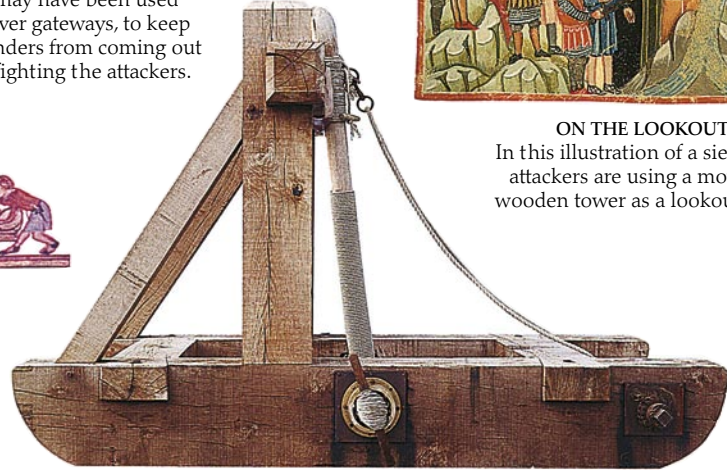
ON THE LOOKOUT

In this illustration of a siege, the attackers are using a movable wooden tower as a lookout post.

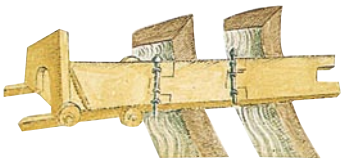


BALLISTA AND TREBUCHET

This illustration from the 14th-century *Romance of Alexander* shows a ballista with a winch worked by a screw thread to pull back both slider and bowstring. The trebuchet has a large windlass mechanism to pull down its arm.



Side view of catapult



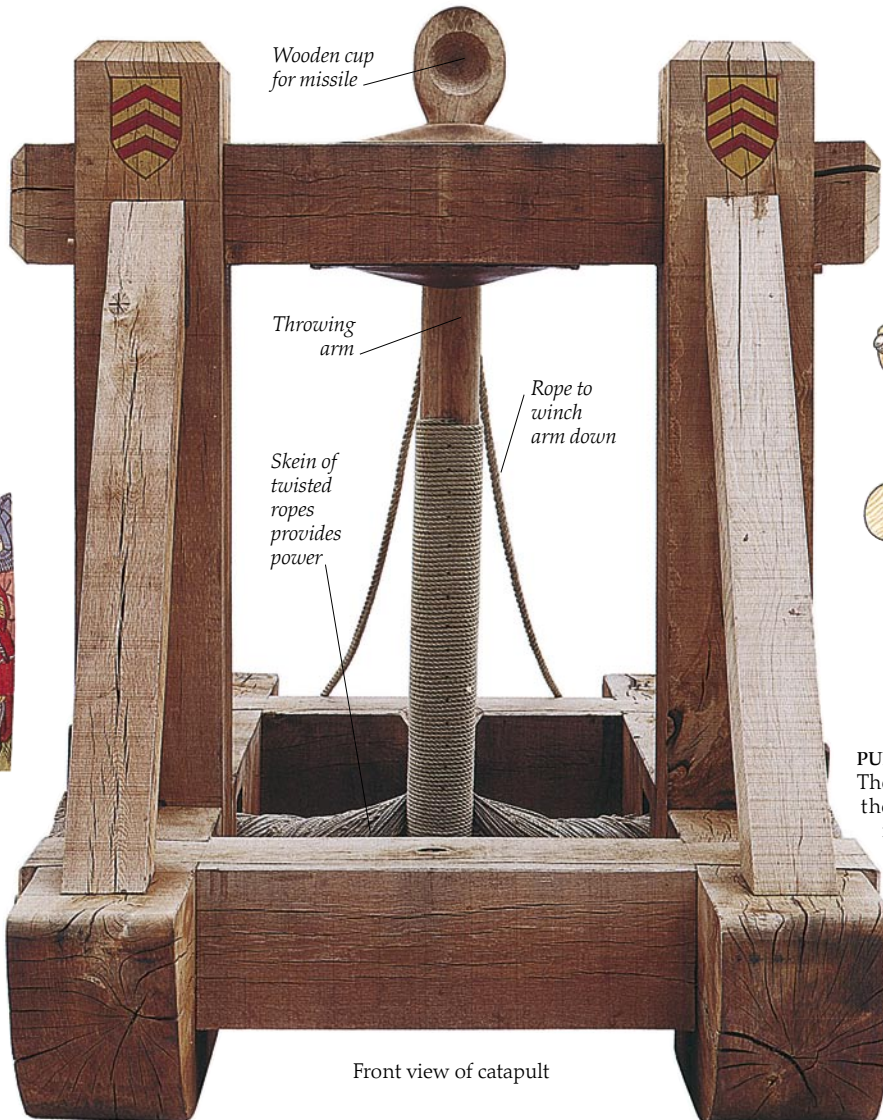
IN THEORY

This is a design for a wooden bridge and covered penthouse to enable attackers to cross a ditch safely. It comes from a manuscript full of ingenious military ideas – many of which were probably not actually used.



SURRENDER

Formal surrender is shown in this 15th-century illustration; the keys of a fortress are being handed to the besiegers. If taken after a siege a town or castle was sometimes looted by the soldiers because its occupants had refused to give up on request. On other occasions a truce would be made so that the person in charge of the castle could send to his lord for permission to surrender.



Front view of catapult

Wooden cup for missile

Throwing arm

Rope to winch arm down

Skein of twisted ropes provides power



Catapult in use

PULLING POWER

The catapult was used in the Roman Empire and was inherited by the soldiers of the Middle Ages. It used the pulling power of a skein of twisted ropes, sinews, or even hair, to force the arm up against a bar. When winched back and released, the arm flew up, releasing its missile from a wooden cup.

Arming for the fight

EARLY ARMOR was quite easy to put on. Mail was pulled on over the head, and a coat of plates (pp. 12–13) was buckled at the back, or at the sides and shoulders. Plate armor was more tricky to put on, but a knight could be armed by his squire in a few minutes and the armor could be speedily

removed if necessary. After putting on a garment called an arming doublet, a knight was always armed from the feet upward, finishing with the helmet. In the 15th century, certain pieces of armor were laced to the arming doublet, but in the following century these pieces were more often attached to each other by straps or rivets. Here a squire is arming a knight in late-15th-century German “Gothic” style armor.

1 ARMING DOUBLET

This padded garment has waxed thongs (called points) to fasten different parts of the armor. Therefore the armor cannot be put on without the arming doublet. The mail gussets on the doublet are under the gaps that will be left by the plates.



2 SABATON, GREAVE, POLEYN, AND CUISSÉ

The sabaton and greave, for foot and lower leg, are followed by the poleyn, which is attached to the cuisse. The top edge is laced up to the torso.



3 MAIL SKIRT

Mail is secured around the waist to protect the groin, another area not fully covered by the plates. Using flexible mail here makes it easier to bend or sit.



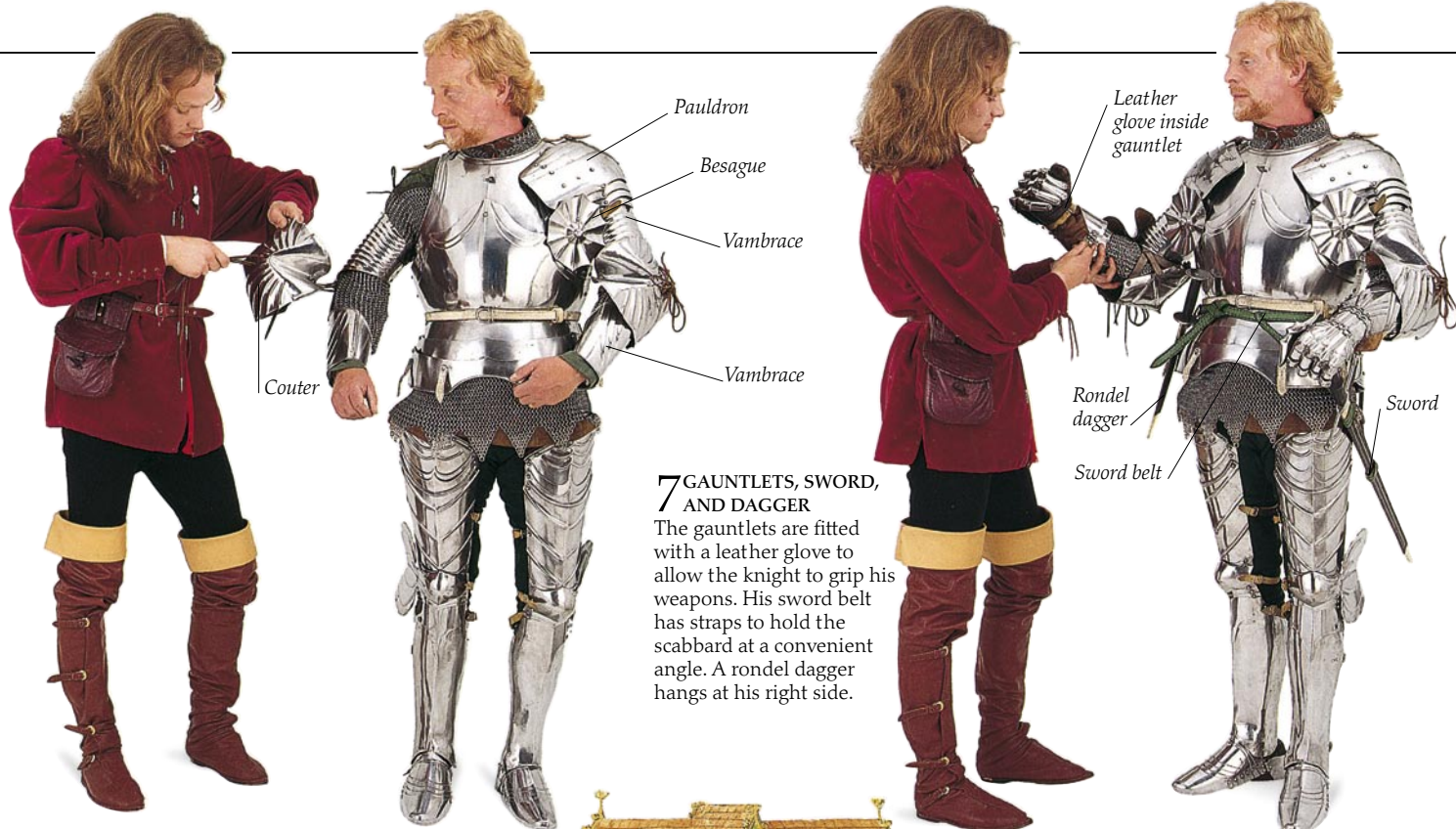
4 BACKPLATE

The backplate is placed in position. It has a flanged lower edge to deflect weapons from the buttocks and legs. A strap and buckle are riveted to the lower front edges.



5 BREASTPLATE

Breast and back together are called the cuirass. They are held together by the waist straps and are also connected at the shoulders.



7 GAUNTLETS, SWORD, AND DAGGER

The gauntlets are fitted with a leather glove to allow the knight to grip his weapons. His sword belt has straps to hold the scabbard at a convenient angle. A rondel dagger hangs at his right side.

6 PAULDRON, COUNTER, VAMBRACE, AND BESAGUE

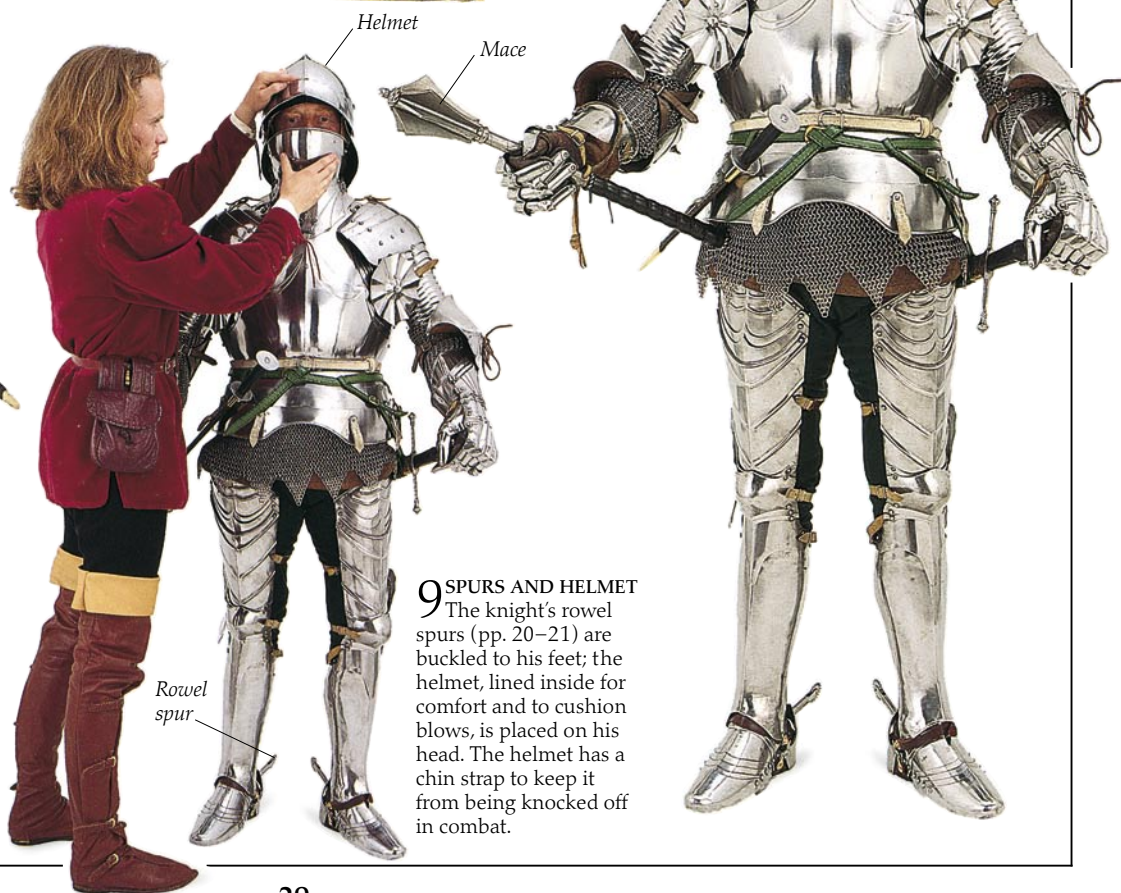
The upper arm guard (vambrace) and elbow piece (couter) are tied by laces through pairs of holes in the plates. The pauldron and besague guard the knight's shoulder and armpit.



8 BEVOR
A "bevor," or chin defense, is added to protect the lower half of the face when wearing the sallet, a form of helmet especially popular in Germany.

ARMING A KNIGHT

A rare picture of about 1450 shows a knight being armed for foot combat in the lists. His arming doublet can be seen.



10 FULLY ARMED

The knight holds a mace, which is an effective weapon against plate armor. Armed from head to foot (or cap-a-pie) he is now ready to mount his warhorse.

9 SPURS AND HELMET

The knight's rowel spurs (pp. 20–21) are buckled to his feet; the helmet, lined inside for comfort and to cushion blows, is placed on his head. The helmet has a chin strap to keep it from being knocked off in combat.

The enemy

KNIGHTS SOON FOUND THEMSELVES facing infantry capable of defeating them. The English axmen at Hastings in 1066 cut down Norman knights, while Flemish foot soldiers with clubs defeated French horsemen at Courtrai in 1302. Massed Scottish spear formations stopped cavalry charges at Bannockburn in 1314, a strategy also favored by the Swiss, using pikes. Different types of bows were highly effective against mounted knights. English longbowmen broke up cavalry charges by French knights at Crécy in 1346 and dismounted knights at Agincourt in 1415. The lethal crossbow shot short bolts from increasingly powerful weapons. In early-5th-century Bohemia (now part of the Czech Republic) the Hussites blasted German knights, using the first massed guns, fired from the protection of wagons.

SLINGER

Some lightly armed infantrymen used slings. The stone or lead pellets were lethal if they struck someone in the face, and groups of slingers could force defenders to keep their heads down during sieges. However, they could not damage armor. Sometimes a sling was attached to a wooden handle to increase range; this device was called a staff sling.

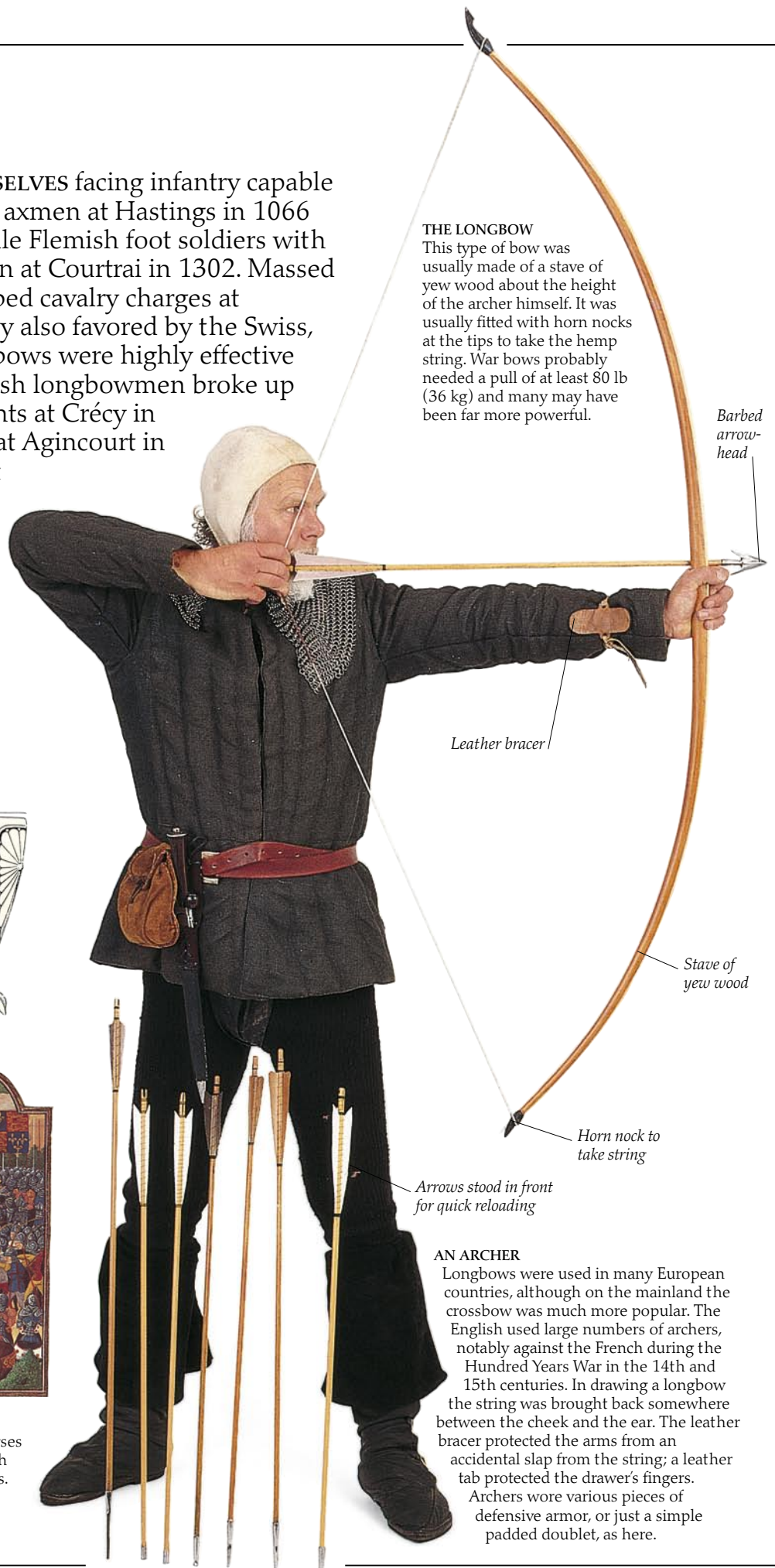


A BRISTLING HEDGE

Cavalrymen were unhappy about forcing their horses against spears, and infantry in close formation with a "hedge" of spears could hold off mounted knights. It then became necessary for archers to try and break up the formations by shooting missiles. The pike was even longer and more effective.

THE LONGBOW

This type of bow was usually made of a stave of yew wood about the height of the archer himself. It was usually fitted with horn nocks at the tips to take the hemp string. War bows probably needed a pull of at least 80 lb (36 kg) and many may have been far more powerful.



AN ARCHER

Longbows were used in many European countries, although on the mainland the crossbow was much more popular. The English used large numbers of archers, notably against the French during the Hundred Years War in the 14th and 15th centuries. In drawing a longbow the string was brought back somewhere between the cheek and the ear. The leather bracer protected the arms from an accidental slap from the string; a leather tab protected the drawer's fingers. Archers wore various pieces of defensive armor, or just a simple padded doublet, as here.

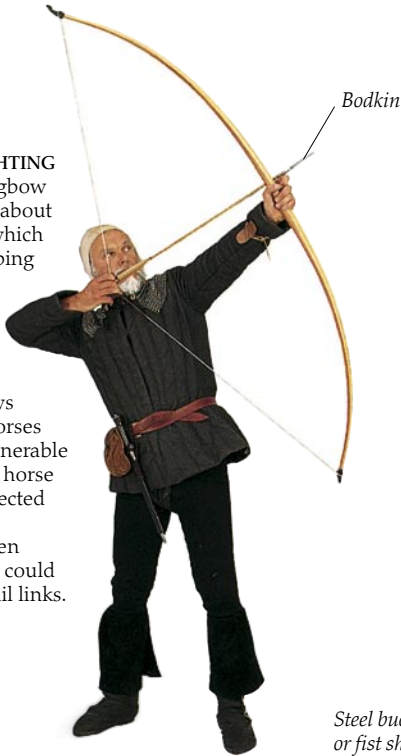


AT THE BUTTS

The strength required to pull a longbow meant that archers needed constant practice to keep in condition and maintain their skills. In this 14th-century picture English archers shoot at the butts, targets set up on earthen mounds.

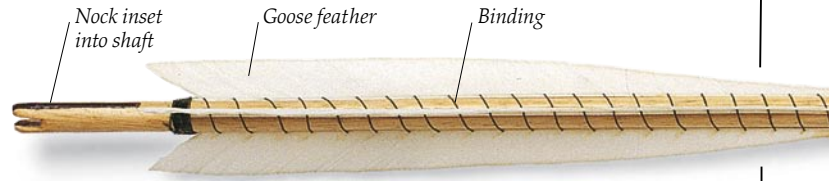
LONG-RANGE FIGHTING

Arrows from a longbow could probably fly about 1,000 ft (300 m), which meant that a "creeping barrage" of arrows could be dropped on an advancing enemy. This was done by shooting the arrows upward. Cavalry horses were especially vulnerable – some part of the horse was always unprotected – and became uncontrollable when wounded. Bodkins could punch through mail links.



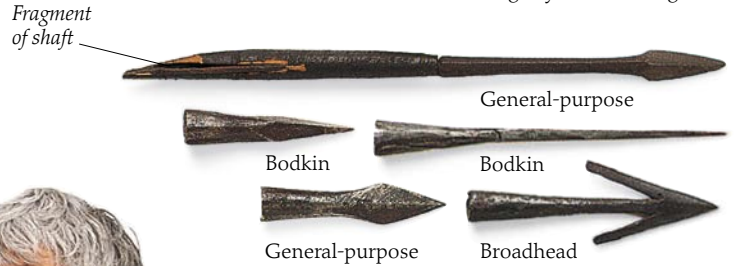
LONGBOW VERSUS CROSSBOW

A skilled archer (such as the men in the center right of this 15th-century illustration) might release 12 arrows per minute. A crossbowman (center left), using a mechanical winder, could only shoot two bolts in the same time. But these would penetrate deeply, and the crossbowman did not need so much training.



THE GOOSE FEATHER

Fletchings, or feather flights, make the arrow spin for a truer flight. Usually goose feathers were used for the vast numbers of arrows needed by an army. The shaft was commonly made from ash wood. The nock holds the arrow lightly on the string.



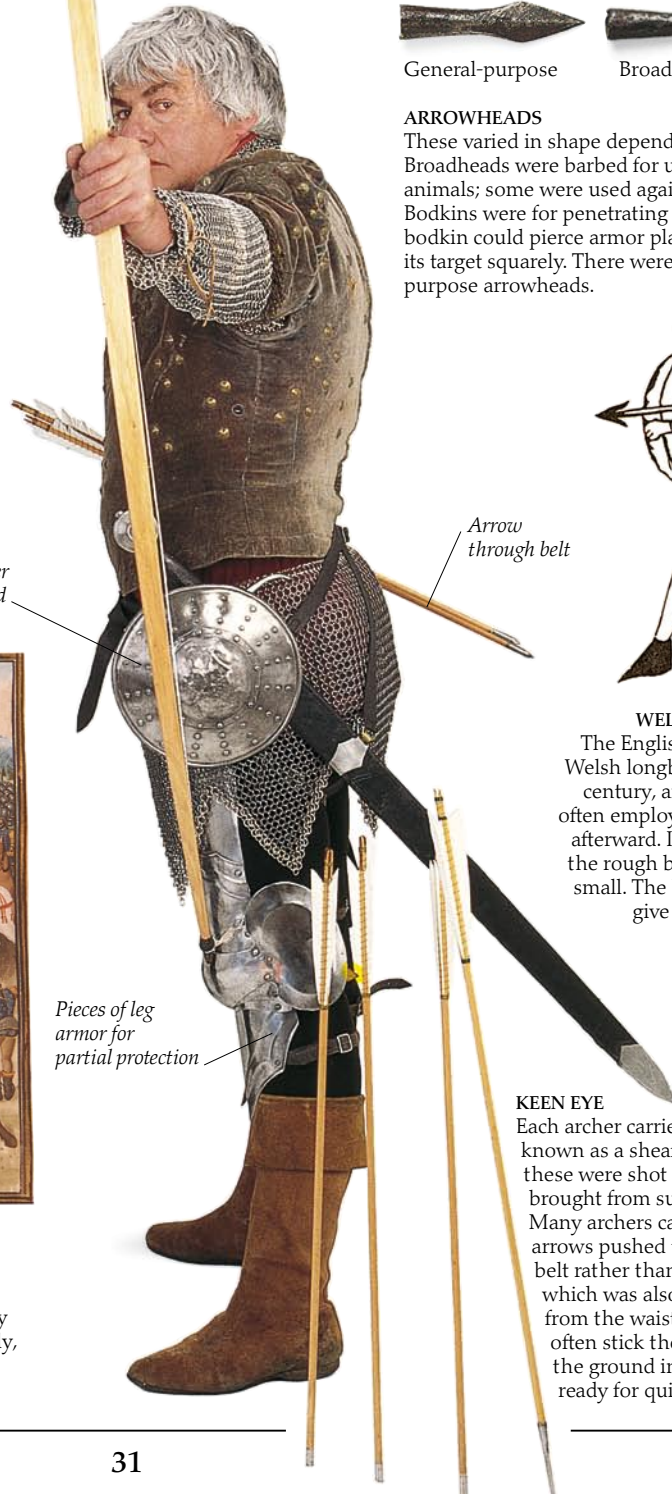
ARROWHEADS

These varied in shape depending on their use. Broadheads were barbed for use against animals; some were used against warhorses. Bodkins were for penetrating armor. A thin bodkin could pierce armor plate when it struck its target squarely. There were also general-purpose arrowheads.



WELSH ARCHER

The English came up against Welsh longbowmen in the 12th century, and such men were often employed in English armies afterward. In this crude picture the rough bow is shown far too small. The bare foot may be to give a better grip.



KEEN EYE

Each archer carried 24 arrows, known as a sheaf, and when these were shot away more were brought from supply wagons. Many archers carried their arrows pushed through their belt rather than in a quiver, which was also usually hung from the waist. They would often stick their arrows into the ground in front of them, ready for quick shooting.



WARRIOR KINGS

The great seals of many medieval kings showed them as head of their army, on horseback, and wearing full armor. Nobles also liked to portray themselves in this way. Here Henry I, king of England (1100–1135) and duke of Normandy, wears a mail coat and conical helmet.

Into battle

THE RULES OF CHIVALRY dictated that knights should show courtesy to defeated enemies. This was not just humane, it brought ransoms from high-ranking prisoners. But this code was not always observed, especially by desperate men facing death. For example, English longbowmen supported by knights slaughtered French knights at the battles of Crécy (1346), Poitiers (1356), and Agincourt (1415). And knights often showed little mercy to foot soldiers, cutting them down ruthlessly in pursuit. Much was at stake in a battle – defeat might mean the loss of an army or even a throne. So commanders preferred to ravage and raid enemy territory. This brought extra supplies as well as destroying property, and showed that the lord could not protect his people in turn.

FIGHTING ON FOOT

Although knights were trained as horsemen, they did not always go into battle as cavalrymen. On many occasions it was thought better for a large part of an army to dismount and form a solid body, often supported by archers and groups of cavalry. In this late-14th-century illustration, dismounted English and French knights and men-at-arms, many wearing visored basinets on their heads (pp. 12–13), clash on a bridge. Archers and crossbowmen assist them.



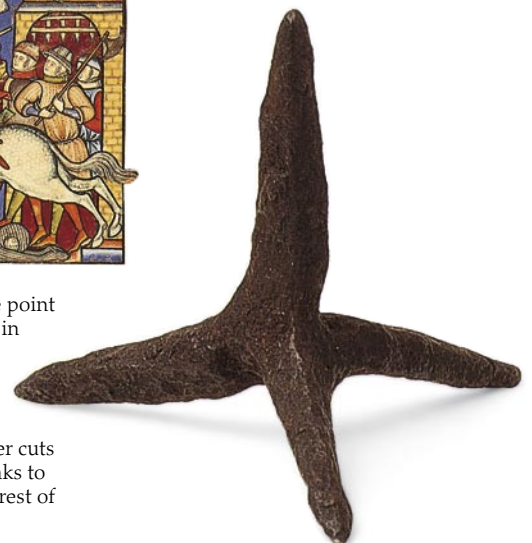
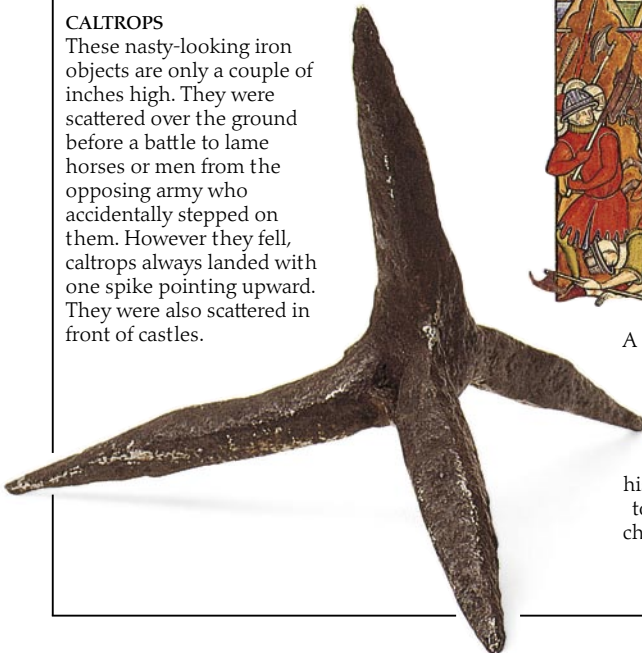
CALTROPS

These nasty-looking iron objects are only a couple of inches high. They were scattered over the ground before a battle to lame horses or men from the opposing army who accidentally stepped on them. However they fell, caltrops always landed with one spike pointing upward. They were also scattered in front of castles.



IN PURSUIT

A mid-13th-century battle scene shows the point when one force in the battle has turned in flight and is pursued by the other side. Often the pursuers did not hesitate to strike at men with their backs turned, and once a man was down, his opponent would give him several further cuts to make sure he stayed there. Breaking ranks to chase the enemy could sometimes put the rest of your army in danger.





WALL OF HORSES *above*
Armor of the 12th century was similar in many parts of Europe, but fighting methods could vary. Instead of using their lances to stab overhand or even to throw, as sometimes happened in the 11th century, the Italian knights on this stone carving are "couching" – tucking – them under their arms. Each side charges in close formation, hoping to steamroller over their opponents.



SHOCK OF BATTLE

This late-15th-century picture shows the crash of two opposing cavalry forces in full plate armor and the deadly effects of well-aimed lances. Those struck down in the first line, even if only slightly wounded, were liable to be trampled by the horses either of the enemy or of their own knights following behind.

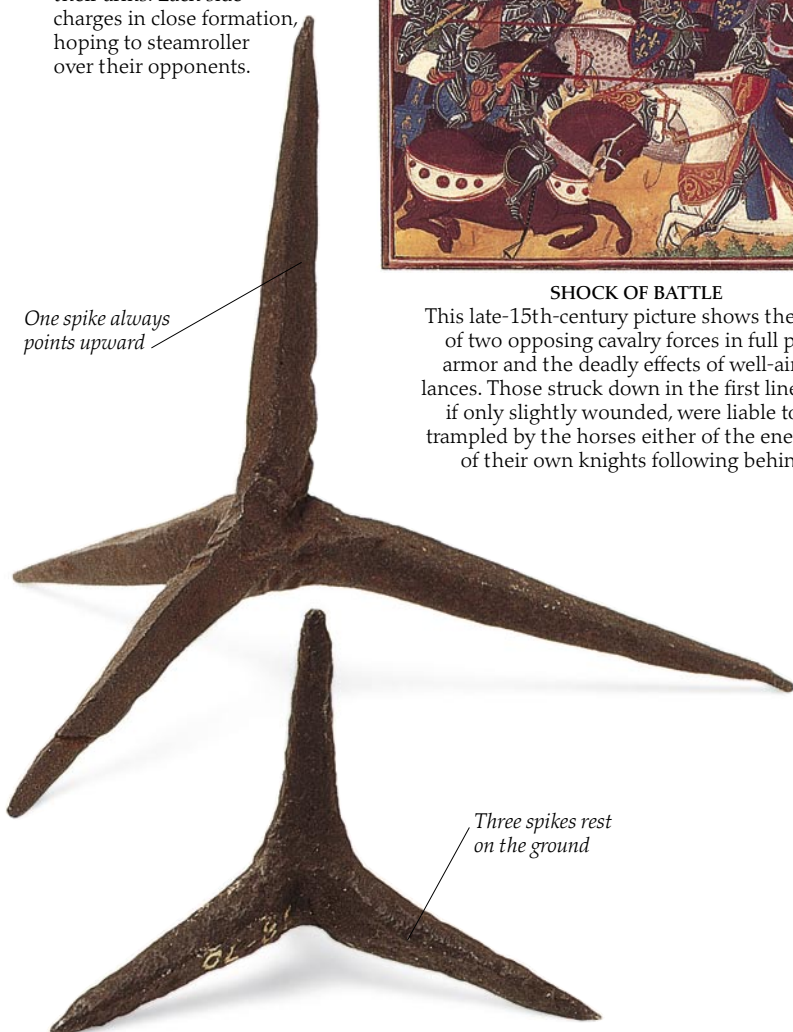


SPOILS OF WAR

When an army was defeated the victors would often capture the baggage. This could contain many valuables, especially if the losing leader was a prince. Captured towns also provided rich pickings, and prisoners and dead knights were stripped of their armor after a battle. In this 14th-century Italian picture the victors examine the spoils.

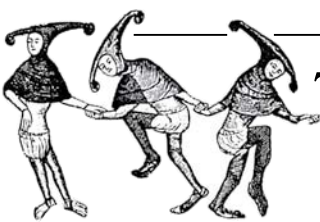
SHOCK WAVES

This early-16th-century German woodcut shows a disciplined charge by mounted knights. Spurring their horses to a gallop as they near the enemy, the first line has made contact while those behind follow with lances still raised. They will lower their lances before meeting their opponents.



One spike always points upward

Three spikes rest on the ground



The castle at peace



SONG AND DANCE

Music was welcomed as entertainment and to accompany meals. Dances usually involved many people, often holding hands for types of ring dance.

THE CASTLE DID NOT JUST house a garrison – it was home for the knight and his household. The most important building inside the castle was the great hall, where everyone had their meals and day-to-day business was done. Sometimes there were also private rooms for the lord. There was also a kitchen (often a separate building in case of fire), a chapel, armorer's workshop, blacksmith, stables, kennels, pens for animals, and large storerooms to keep the castle well stocked. A water supply was vital, preferably a well, which could be used in times of siege. Outer walls might be whitewashed to protect them against the weather; inner walls could be plastered and brightly painted. Castles were useful resting places for nobles when they were traveling. When they were expected, the domestic apartments were made ready and the floors might be covered with fresh straw, rushes, or sweet-smelling grasses.



SILVER CRUET

This silver vessel was kept in the chapel to hold the holy water or wine used in the Mass. It was made in Burgundy in the late 14th century.



AT THE LORD'S TABLE

At mealtimes the whole household would come together in the great hall. On this manuscript of about 1316, Lancelot entertains King Arthur by telling him about his adventures.

BLAZING FIRE
Large fireplaces could be set in the thick stone walls of castles. The woman is spinning woolen thread (pp. 38–39).



Coat-of-arms

WALL SCONCE

Only the rich could afford wax candles to burn in sconces, like this 16th-century French example. Made of gilt copper, it bears the coat-of-arms of the Castelnau-LaLoubere family encircled by the collar of the Order of St. Michael.



Limoges enamel decoration

SPIKED

This type of candlestick, called a pricket candlestick, had a long spike to hold the candle. This one, dating to about 1230, was probably used in a castle chapel.



A GAME OF CHESS

Duke Francis of Angoulême (later king of France) plays chess with his wife Marguerite in a picture of about 1504. Being a wargame, chess was popular with knights. Chess pieces were often made of bone or ivory and beautifully carved.

Painted and tooled leather sheath



SERVING KNIVES

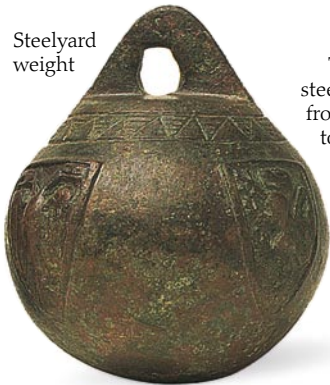
Pairs of broad-bladed knives like these 15th-century German ones were used for serving food. Each handle is mounted in brass and the grips have mahogany panels with plaques of stag horn. Each blade has an ancient swastika symbol. The leather sheath has lost its cap.

PLAY THE GAME

Board games helped to pass long evenings. Here a young man of the early 14th century plays checkers with a lady. Backgammon was also popular.



Steelyard weight



BRONZE WEIGHTS

The late-13th-century steelyard weight was hung from a pivoting metal arm to figure out the weight of an object placed on the other end. The weight on the right has the English royal arms in the version used after 1405.



Royal arms

HAND BASIN

Pairs of basins like this, called gemellions, were used to wash peoples' hands at the table. A servant would pour water over the person's hands from one basin into the other and then dry the hands with a towel. Sometimes the water was poured from a ewer (pitcher) instead. This gemellion is decorated with Limoges enamels.



Household musician

A knight kneels before his lady



CHAMBER POT

Richer people might use chamber pots, like this one, for convenience, although castles often had lavatories built into the walls. These consisted of a seat connected to a chute which opened directly on to the outside of the castle wall.





The lord of the manor

SOME KNIGHTS were mercenary soldiers who fought simply for money. Others, particularly until the 13th century, lived at their lord's expense as household troops in his castle. But a man might be given some land by his lord. Then he became lord of the manor and lived off its produce. He lived in a manor house, often of stone and with its own defenses. He held a large part of the manor as the home farm; "his" peasants, workers of varying status, owed him service in return for their homes. They had to bake their bread in his oven and pay for the privilege. Both the lord and the church received part of their goods, although they might be invited to feasts at festivals, such as Lammas (when bread made from the season's first corn was blessed). The lord sat in judgment in the manor court and might have a house in a town for business dealings.



HOME DEFENSE

Stokesay is a fortified manor house in Shropshire, England. It consists of a hall and chamber block with a tower at each end, mostly built in the late 13th century. In the 17th century a wooden section was added on one end.



ALL IN THE GAME

This wealthy 14th-century Italian couple whiles away the time with a board game. Knights' only other entertainment came from resident or strolling players, musicians, or poets.



Modern cast



Original die

MY SEAL ON IT

Noblemen often could not read or write. Instead of signing a document they added a wax seal, pressed from a metal die. This is the silver seal die, with a modern cast, of Robert Fitzwalter, one of the leaders of the rebel English barons who made King John sign the Magna Carta in 1215.

Name of Robert Fitzwalter, owner of the seal

IVORY CHESS PIECES

These Scandinavian chessmen, found on the Isle of Lewis, Scotland, are carved from walrus ivory and date from the mid-12th century.

Queen



King



Bishop



Knight



Warder (Rook)



UPHILL STRUGGLE

The medieval peasant had a life of hard work in the fields, growing and harvesting the crops. The 14th-century Luttrell Psalter shows peasants trying to coax a hay cart up a steep slope.



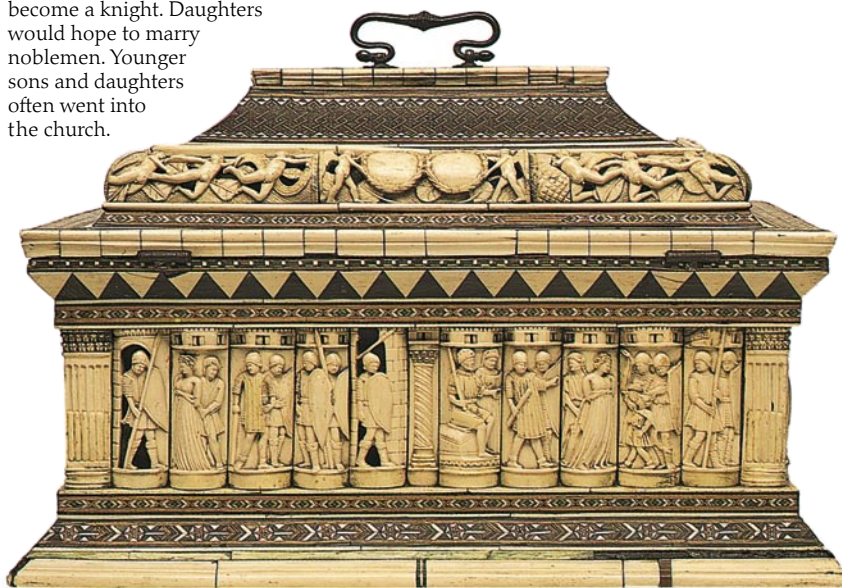
GARDEN OF DELIGHT

One of the houses on this 15th-century manor is made of a framework of timbers filled in with wattle and daub (twigs and mud), and then whitewashed. Close by is an orchard of fruit trees.



LIKE FATHER, LIKE SON

These details from an altar frontal of about 1500 show a knight in prayer, with his seven sons. Large families were common. The eldest son would follow his father and become a knight. Daughters would hope to marry noblemen. Younger sons and daughters often went into the church.



DECORATED CASKET

This large box belonged to a rich family of the early 15th century. It is made of wood covered in bone panels carved with biblical scenes from the story of Susanna and the Elders.

THE LORD

The status and rank of a lord varied, as did the size of his manor. Some lords were powerful men who held a number of manors, visiting them as necessary. A bailiff would look after the running of the estates when the lord was away. He might go on trips to a town where merchants carried on their trade and where lords in need of money could borrow it from money-lenders.



THE LIFE OF THE LADY

The lady ruled the domestic areas – the kitchens and living quarters – of the castle or manor house. She had officials to run the household affairs, but she had to check the accounts and agree to any expenses. It was her duty to receive guests courteously and arrange for their accommodation. Ladies-in-waiting were her companions; maidservants attended her; and nurses looked after her children. The children were very important, for the lady's main role in medieval society was to provide heirs.

The lady of the manor

WOMEN IN THE MIDDLE AGES, even those of noble rank, had far fewer rights than a woman can expect today. Young women were often married by the age of 14. A girl's family would arrange her marriage and she would be given a dowry, a gift to pass on to her husband. Upon marriage a woman's inheritance passed to the husband, so knights were often on the lookout for a rich heiress to marry. But the lady was her husband's equal in private life. She could provide great support for him and take responsibility for the castle when he was away. She might even have to defend the castle if it was besieged, and hold it against her enemies.

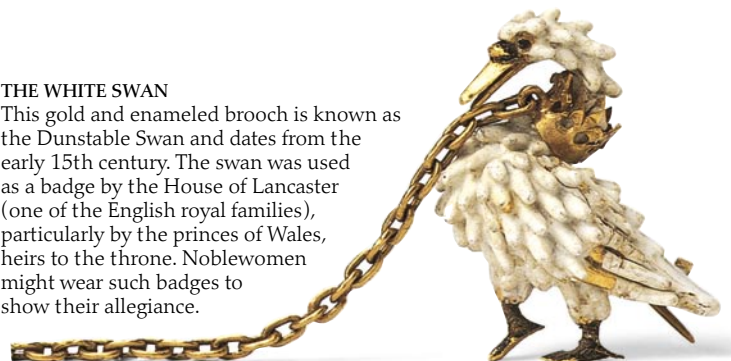


DALLIANCE

The ideal of courtly love is shown in an illustration from the medieval poem *The Romance of the Rose*. Women pass the time pleasantly, listening to a song while a fountain pours water into an ornamental stream. In reality, many women would not have had time for such activities.

THE WHITE SWAN

This gold and enameled brooch is known as the Dunstable Swan and dates from the early 15th century. The swan was used as a badge by the House of Lancaster (one of the English royal families), particularly by the princes of Wales, heirs to the throne. Noblewomen might wear such badges to show their allegiance.



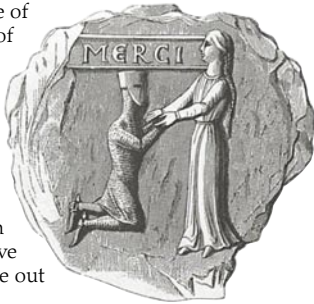


WOMEN OF ACCOMPLISHMENT

Ladies were often very well educated. Some could read and write, understand Latin, and speak foreign languages. In this picture of the 1460s, learned ladies with books represent Philosophy and the Liberal Arts.

ON BENDED KNEE

A knight of about 1200 places his hands in those of his lady in an act of homage like that performed by a subordinate to his lord. In this case he is indicating that he will be his lady's servant – an ideal of courtly love that was not borne out in practice.



BAD NEWS

A lady swoons on receiving news of her husband's death. Although marriages were arranged by the couple's families, husband and wife could and did become extremely fond of one another and sometimes grew to love each other.



"SUITABLE" OCCUPATIONS

Women were expected to know how to spin wool, but some men thought teaching them to read was dangerous. In this early-15th-century picture one woman spins woolen thread while another cards, or combs out, the wool.



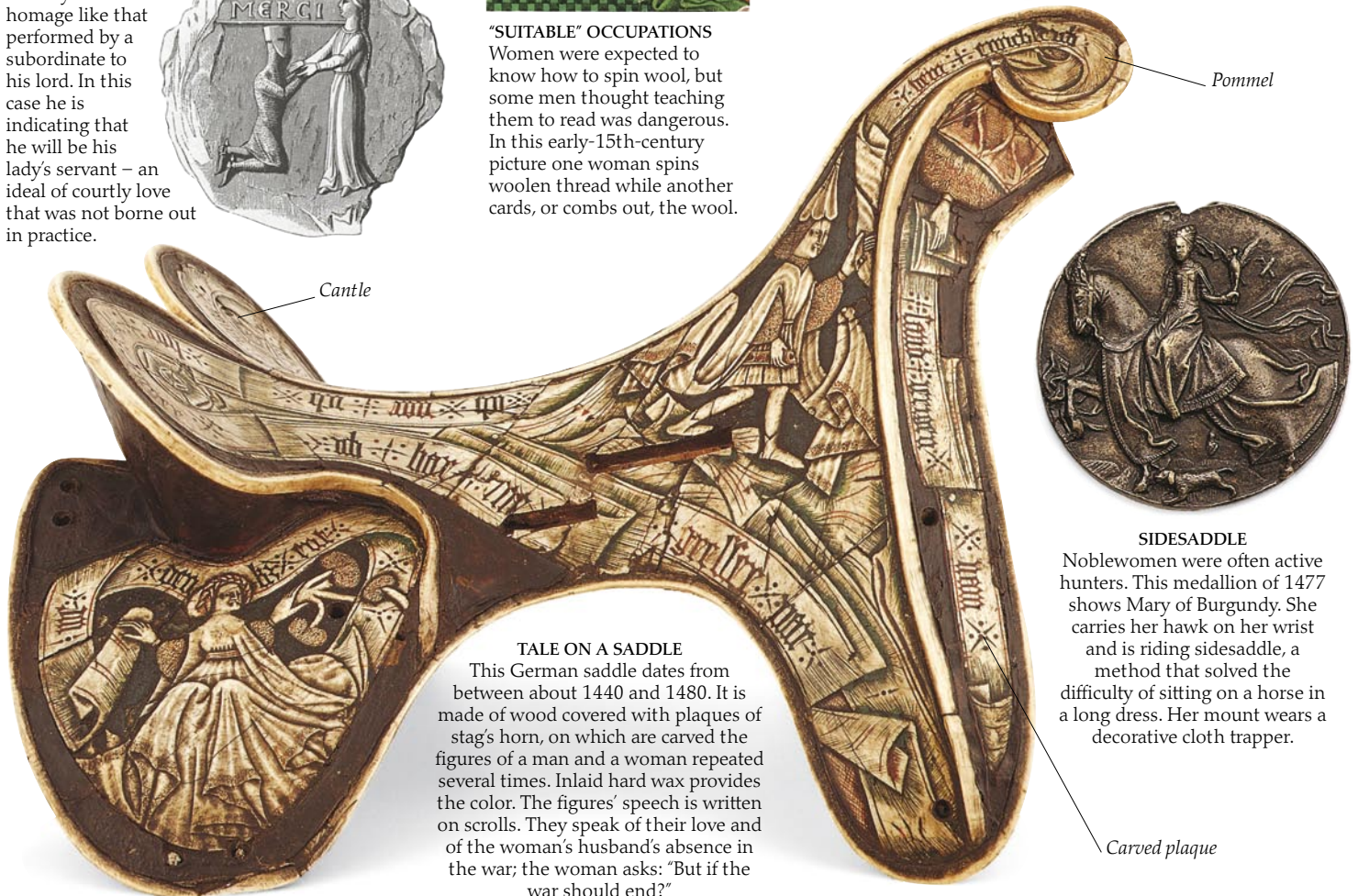
Flemish gold brooch



English gold brooch

JEWELS

Women liked to display their rank by wearing rings and brooches. The 15th-century gold brooch at the top is probably Flemish and has a female figure among the precious stones. The late-14th-century English brooch is decorated with coiled monsters.



TALE ON A SADDLE

This German saddle dates from between about 1440 and 1480. It is made of wood covered with plaques of stag's horn, on which are carved the figures of a man and a woman repeated several times. Inlaid hard wax provides the color. The figures' speech is written on scrolls. They speak of their love and of the woman's husband's absence in the war; the woman asks: "But if the war should end?"



SIDESADDLE

Noblewomen were often active hunters. This medallion of 1477 shows Mary of Burgundy. She carries her hawk on her wrist and is riding sidesaddle, a method that solved the difficulty of sitting on a horse in a long dress. Her mount wears a decorative cloth trapper.

Carved plaque

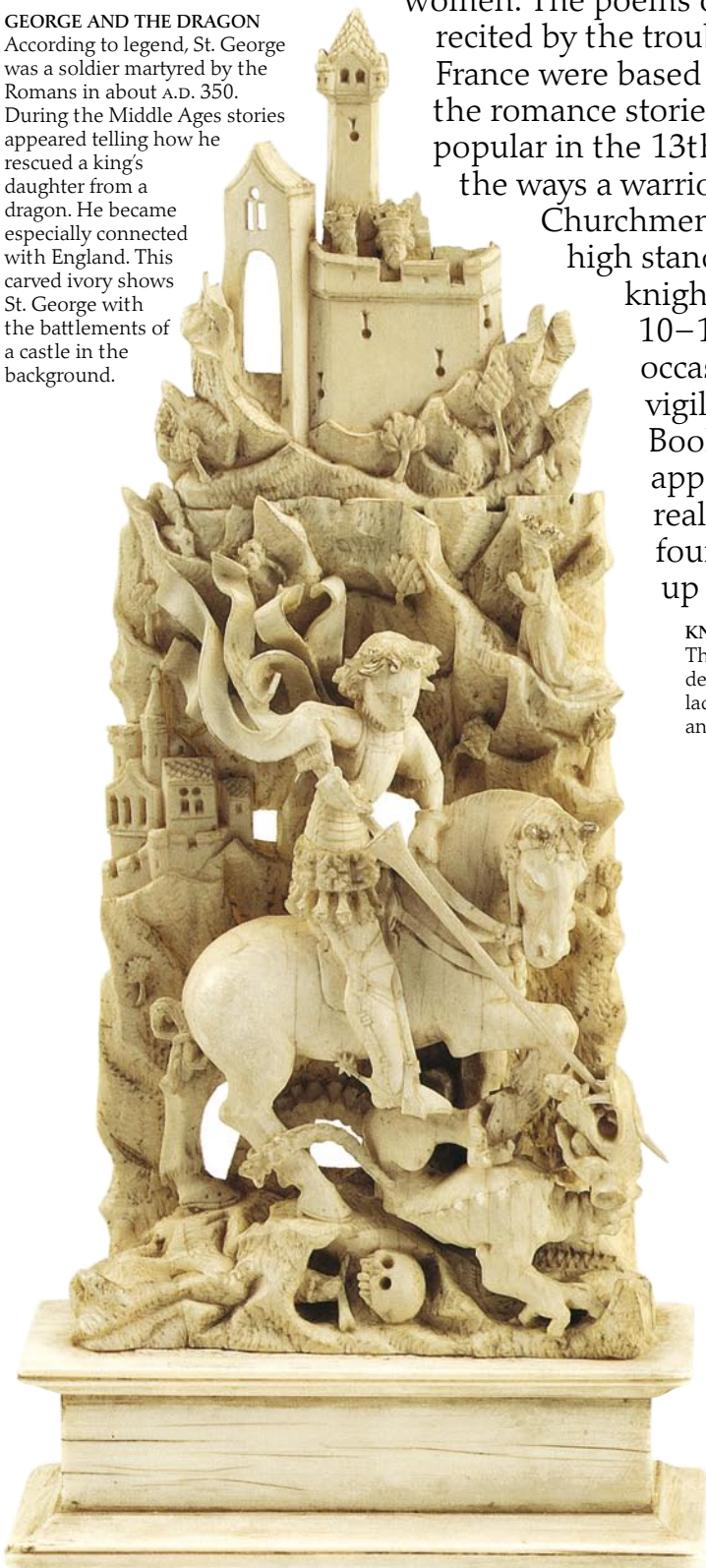
Pommel

Cantle

The ideal of chivalry

ALTHOUGH KNIGHTS were men of war, they traditionally behaved in a courteous and civil way when dealing with their enemies. In the 12th century this kind of behavior was extended to form a knightly code of conduct, with a special emphasis on courtly manners toward

GEORGE AND THE DRAGON
According to legend, St. George was a soldier martyred by the Romans in about A.D. 350. During the Middle Ages stories appeared telling how he rescued a king's daughter from a dragon. He became especially connected with England. This carved ivory shows St. George with the battlements of a castle in the background.



women. The poems of courtly love recited by the troubadours of southern France were based on this code, and the romance stories that became popular in the 13th century showed the ways a warrior should behave.

Churchmen liked the idea of high standards and made the knighting ceremony (pp. 10–11) a religious occasion with a church vigil and purifying bath. Books on chivalry also appeared, though in reality knights often found it difficult to live up to the ideal.

KNIGHT IN SHINING ARMOR

This 15th-century tournament parade shield depicts a bareheaded knight kneeling before his lady. The words on the scroll mean "You or death," and the figure of death is represented by a skeleton.



TRUE-LOVE KNOTS

Medallions like this were sometimes made to mark special occasions, such as marriages. This one was struck to commemorate the marriage of Margaret of Austria to the Duke of Savoy in 1502. The knots in the background are the badge of Savoy – they also refer to the way the couple's love will unite the two families.

WHAT'S IN A NAME?

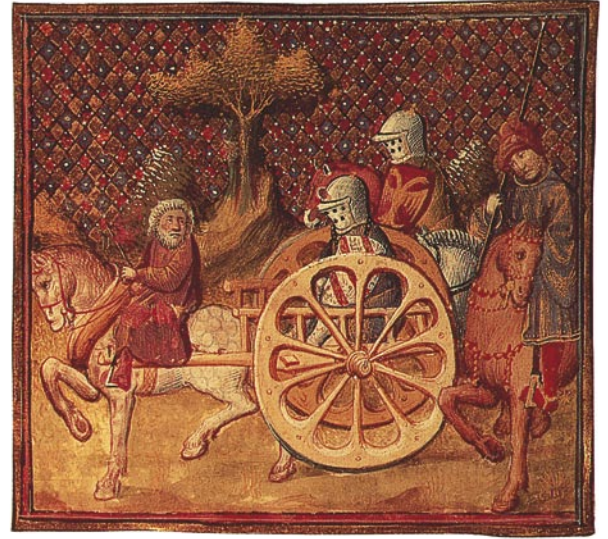
This scene, from the 15th-century book *The Lovelorn Heart*, by Frenchman René of Anjou, illustrates the strange world of the medieval romance in which people can stand for objects or feelings. Here the knight, called Cueur (meaning Heart), reads an inscription while his companion, Desire, lies sleeping.





LANCELOT AND GUINEVERE

King Arthur was probably a fifth-century warrior, but the legends of the king and the knights of the Round Table gained popularity in 13th-century Europe. They tell of Arthur's struggles against evil and of the love between Arthur's queen, Guinevere, and Sir Lancelot, which eventually led to the destruction of Arthur's court. In this story, Lancelot crosses a sword bridge to rescue Guinevere.



THE KNIGHT OF THE CART

Knights rode on horseback and it was usually thought a disgrace for a knight to travel in a cart. This picture shows an episode from the story of Sir Lancelot. Lancelot was famous for his valour and skill in combat, but his love affair with Queen Guinevere brought him shame. In this episode Lancelot meets a dwarf who offers to tell him where Guinevere is if he will ride in the cart.

ROYAL CHAMPION

Sir Edward Dymoke was the champion of Queen Elizabeth I of England. At her coronation banquet in Westminster, it was his job to ride fully armed into the hall and hurl his gauntlet to the ground to defy anyone who wished to question the queen's right to rule. Such a challenge was made at every coronation until that of George IV in 1821.



TRAGIC LOVERS

The ivory carvings on this 12th-century box show episodes from the story of Tristan and Iseult. This is a tale of the knight Tristan, who accidentally drank a love potion and fell in love with Iseult, the bride of his uncle, King Mark.

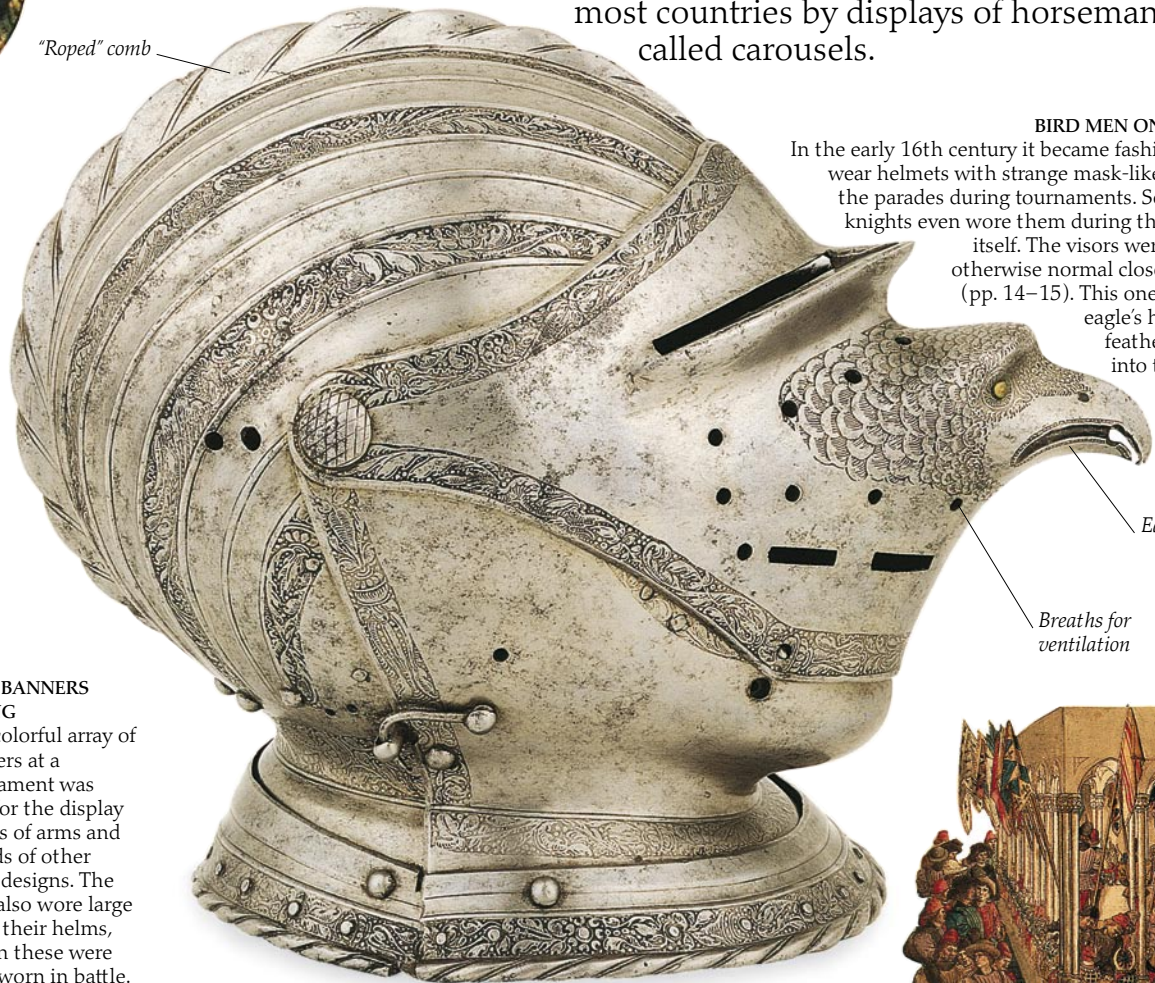
The tournament

FIGHTING MEN HAVE ALWAYS TRAINED for battle. Tournaments started, as practice for war, probably in the 11th century. Two teams of knights would fight a mock battle, called a tourney or *mêlée*, over a huge area of countryside, sometimes even assisted by foot soldiers. Defeated knights gave up their horse and armor to the victor, so a good fighter could make a fortune. At first, battle armor and sharp weapons were used, but blunted weapons were introduced in the 13th century. Other contests, such as jousts (pp. 44–45) and combat on foot (pp. 46–47), also were held. In the *pas d'armes*, popular in the 15th century, one or more contestants held the lists, or tournament ground, and sent challenges to other knights and squires. In the 17th century the tournament was replaced in most countries by displays of horsemanship called carousels.



WITH BANNERS FLYING

The colorful array of banners at a tournament was ideal for the display of coats of arms and all kinds of other fanciful designs. The knights also wore large crests on their helmets, even when these were no longer worn in battle.



"Roped" comb

BIRD MEN ON PARADE

In the early 16th century it became fashionable to wear helmets with strange mask-like visors in the parades during tournaments. Sometimes knights even wore them during the tourney itself. The visors were fitted to otherwise normal close-helmets (pp. 14–15). This one is like an eagle's head, with feathers etched into the metal.

Eagle's beak

Breaths for ventilation

Devil

DEVIL TAKE YOU

Although tournaments were popular with knights, and many people liked to watch, the church frowned on them because much blood was often spilled. In this early-14th-century picture, devils wait to seize the souls of knights killed in a tourney.



A KNIGHT DISGRACED

The women viewed the banners and crested helmets of the contestants before the tourney. If a lady knew that one of the knights had done wrong, his helm was taken down and he was banned from the lists. This picture comes from the 15th-century tournament book of René of Anjou.



CLUB TOURNEY

In this type of tournament, two teams use blunt swords and clubs only. Their crested helmets are equipped with protective face grilles. Each knight has a banner-bearer, while attendants (called varlets) stand ready in case he falls. The knight of honor rides between two ropes that separate the teams; ladies and judges are in the stands. Although the lists had become smaller the artist of this picture has squashed them up to fit everything in.



Plume holder

Etched and gilt decoration

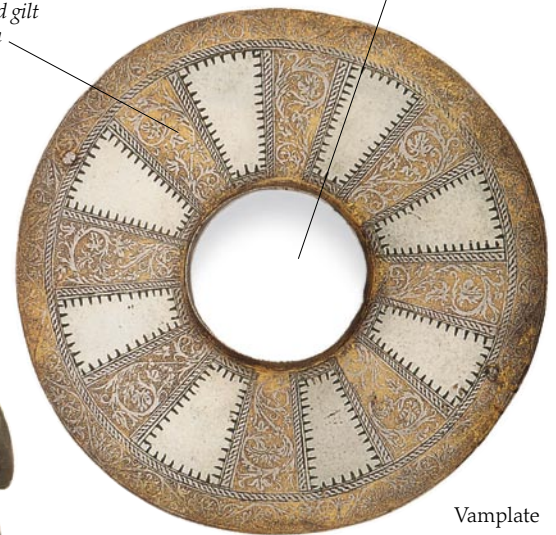
Face embossed in metal

Neck guard

PARADE CASQUE

This Italian open helmet of about 1530 was worn in parades. It has embossed decoration and the face has been given a plate shaped like teeth. It may once have had a lower set of teeth as well. The hinged earpieces are missing.

Metal plate imitating teeth



Hole to take lance

Vamplate

VAMPLATE AND LOCKING-GAUNTLET

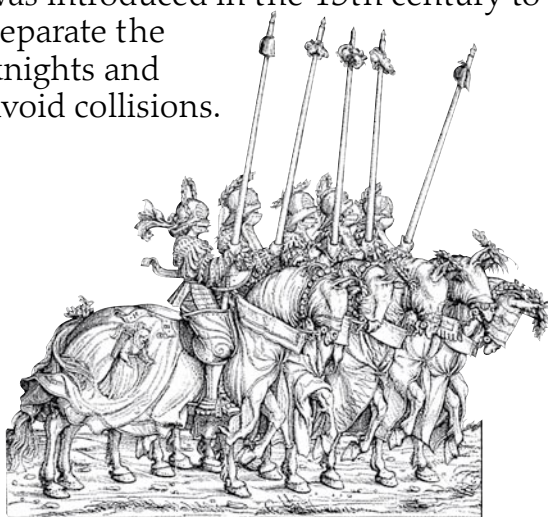
The circular vamplate was fixed over the lance to guard the knight's hand. Once the knight had gripped his sword the locking-gauntlet was locked shut so the sword was not lost in combat. It became popular in the 16th century. Both objects are from an Italian armor of about 1570.



Locking-gauntlet

The joust

DURING THE 13TH CENTURY a dramatic new element was added to the tournament – jousts, in which knights fought one-to-one. In a joust, a knight could show his skill without other contestants getting in the way. Usually the knights fought on horseback with lances, though in some contests they continued the fight with swords. Two knights would charge toward one another at top speed and try to unhorse each other with a single blow of the lance. You could also score points if you broke your lance on your opponent's shield. Sometimes they used sharp lances in combats called "jousts of war." These could kill a knight, so many jousters preferred to use a lance with a blunt tip or with a coronel shaped like a small crown to spread the impact. Such combats were called "jousts of peace." Special armor was developed for jousting, to increase protection. A barrier called the tilt was introduced in the 15th century to separate the knights and avoid collisions.



GERMANIC JOUSTERS

In Germany, knights often practiced the "Rennen," a version of the jousts of war. Since no barrier was used, the knights' legs were partially protected by metal shields. The shields above their heads show that in this version they could be struck off.

BREAKING A LANCE
Lances were made of wood and by the 16th century were often fluted to help them splinter easily. This 17th-century lance is slightly thinner than those used for jousting against an opponent. It was used to spear a small ring hanging from a bracket.



Eye slit



FROG-MOUTHED HELM

This 15th-century helmet for the jousts of peace was originally fastened down the back and front. The wearer could see his opponent by leaning forward during the charge. At the moment of impact he straightened up, so that the "frog-mouthed" lower lip protected his eyes from the lance head or fragments of the shaft.

Curved edge to support lance

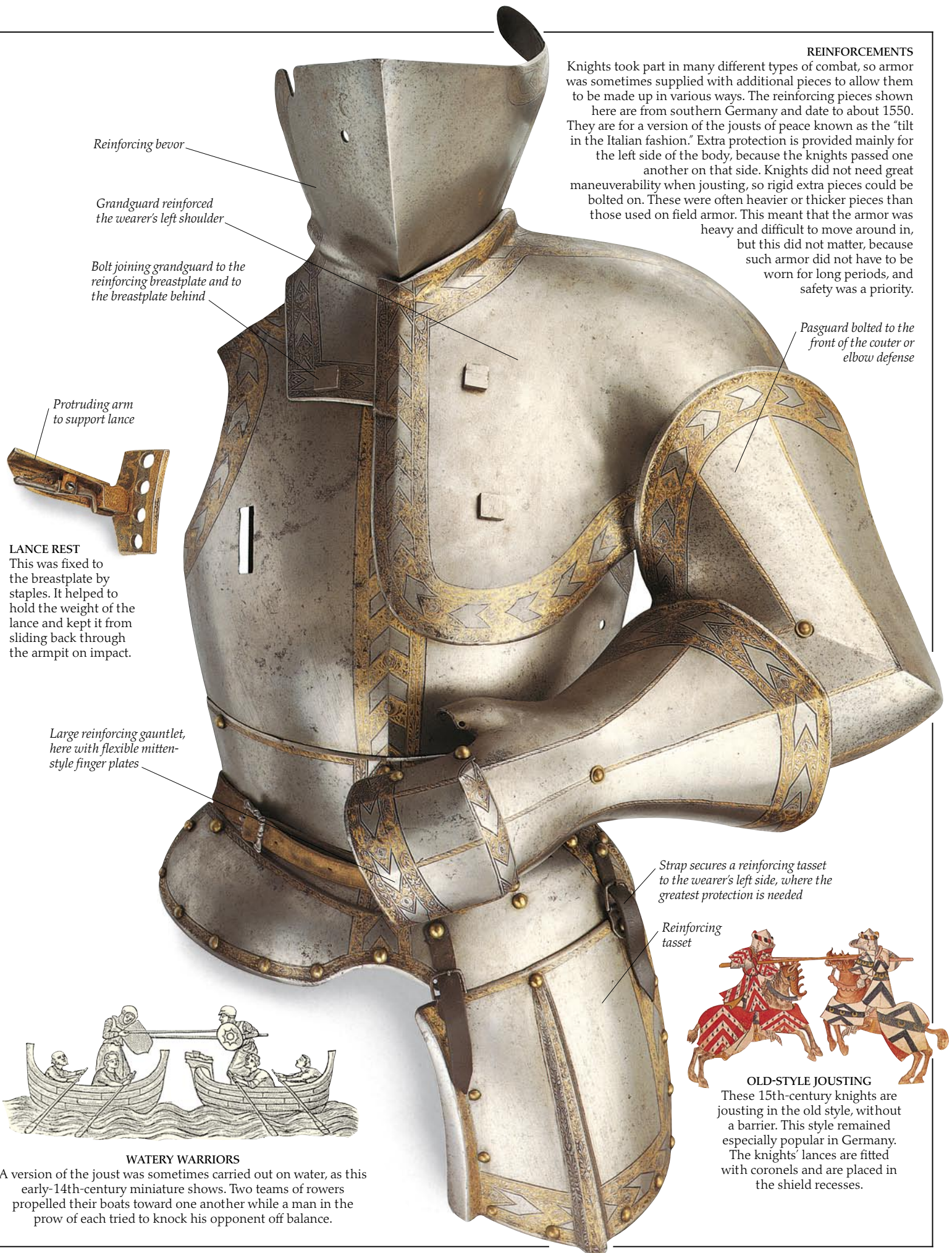


LANCER'S SHIELD

This late 15th-century wooden shield is covered in leather. It was probably used for the *Rennen*. The lance could be placed in the recess in the side. The shield was attached to the breastplate by a staple nailed to the rear.

PARADE BEFORE THE TILT

Knights paraded beside the tilt, or barrier, before the jousting commenced. This scene from Jean Froissart's *Chronicles* was painted in the late 15th century, though it depicts the jousts at St. Inglevert, which took place in 1390, before the tilt was introduced. Attendants with spare lances accompany the knights.



Reinforcing bevor

Grandguard reinforced the wearer's left shoulder

Bolt joining grandguard to the reinforcing breastplate and to the breastplate behind

Protruding arm to support lance

LANCE REST

This was fixed to the breastplate by staples. It helped to hold the weight of the lance and kept it from sliding back through the armpit on impact.

Large reinforcing gauntlet, here with flexible mitten-style finger plates

REINFORCEMENTS

Knights took part in many different types of combat, so armor was sometimes supplied with additional pieces to allow them to be made up in various ways. The reinforcing pieces shown here are from southern Germany and date to about 1550. They are for a version of the jousts of peace known as the "tilt in the Italian fashion." Extra protection is provided mainly for the left side of the body, because the knights passed one another on that side. Knights did not need great maneuverability when jousting, so rigid extra pieces could be bolted on. These were often heavier or thicker pieces than those used on field armor. This meant that the armor was heavy and difficult to move around in, but this did not matter, because such armor did not have to be worn for long periods, and safety was a priority.

Pasguard bolted to the front of the couter or elbow defense

Strap secures a reinforcing tasset to the wearer's left side, where the greatest protection is needed

Reinforcing tasset



WATERY WARRIORS

A version of the joust was sometimes carried out on water, as this early-14th-century miniature shows. Two teams of rowers propelled their boats toward one another while a man in the prow of each tried to knock his opponent off balance.



OLD-STYLE JOUSTING

These 15th-century knights are jousting in the old style, without a barrier. This style remained especially popular in Germany. The knights' lances are fitted with coronels and are placed in the shield recesses.

Foot combat

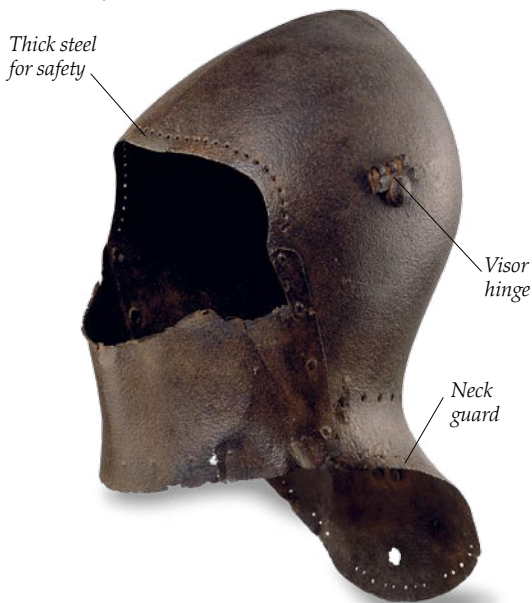
IN SOME 13TH-CENTURY JOUSTS the knights dismounted after using their lances and fought on with swords. By the 14th century, such foot combats were popular in their own right. Each contestant was allowed a set number of blows, delivered alternately. Men-at-arms stood ready to separate them if they got too excited. From 15th-century writings we learn that each man sometimes threw a javelin first, then the fight went on with sword, ax, or staff weapon. Later still, such combats were replaced by contests in which two teams fought across a barrier. It was called the foot tournament because, as in the mounted tourney (pp. 42–43), each man tried to break a spear against

his opponent before continuing the fight with blunted swords.



FORMAL FIGHT

Foot combats in the 15th century took place without a barrier, so the contestants protected their legs with armor. The most common helmet for these contests was the great basinet (pp. 12–13), which was outdated for war by the middle of the century.

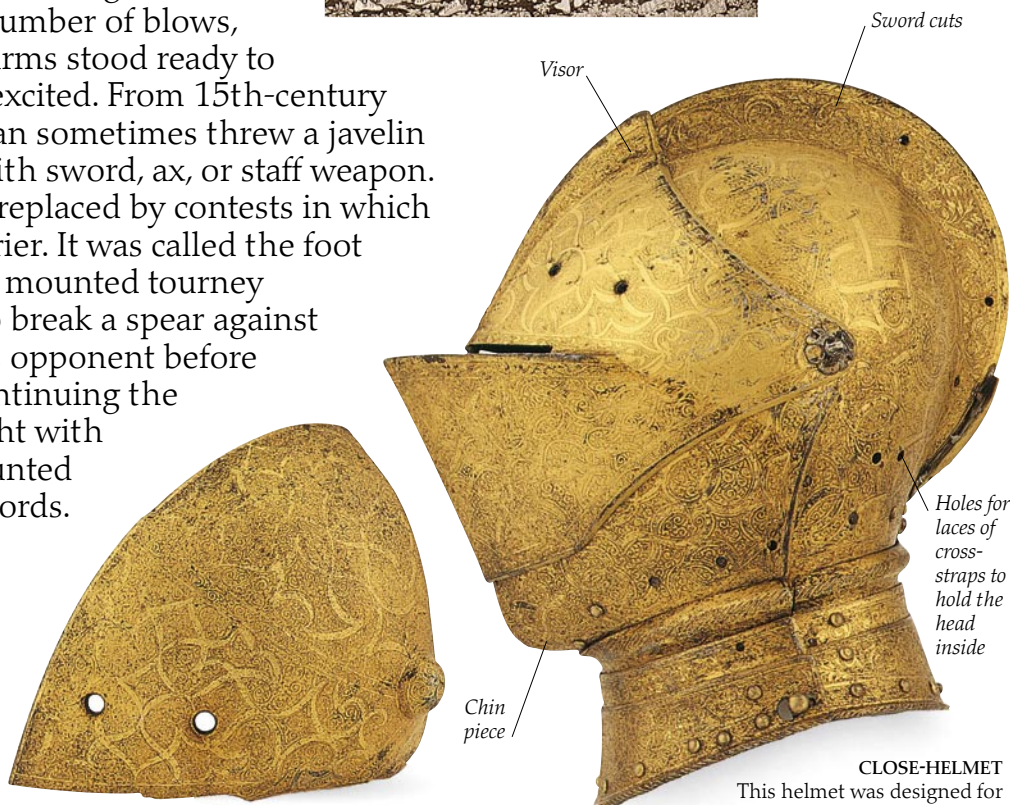


FOOT COMBAT

Helmets for foot combat and, later, the team event called the foot tournament, had to be able withstand direct blows at close quarters, so the steel might be thicker than on a battle helmet. This 16th-century helmet would have had a visor that locked in place with a catch. A pivoting support held up the visor when not in action.



AT THE READY
This detail from a 16th-century Flemish tapestry shows contestants waiting to take part in foot combat over the barrier. A page is handing one knight his helmet.

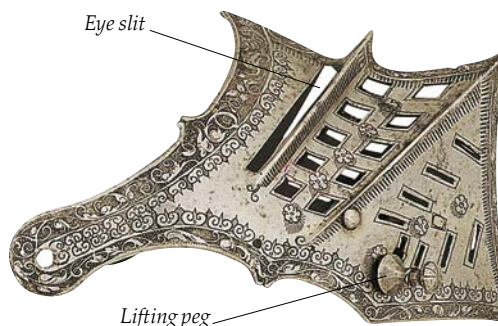


CLOSE-HELMET

This helmet was designed for the tournament on foot. It is so richly gilded that it is surprising that it was ever worn in actual combat. But the sword cuts show that it must have been used. It was part of a dazzling garniture of gilt armor made in 1555.

Hand-threaded screw

BROW REINFORCE
This plate was screwed to the visor of the close-helmet shown on the right. It gave more protection to the left side of the head.



EXCHANGE VISOR

Two threaded bolts allowed the visor to be removed from the helmet on the left and replaced with this one, which has a number of ventilation holes. It could be used for battle or for foot combat.

TRIAL BY BATTLE

Not all foot contests were held for sport. Sometimes a charge of murder or treason was settled by a combat, in which God was thought to help the innocent man. The contest went on until the accused was either killed or surrendered, in which case he was executed.



POLLAX

This weapon was very popular in battle and foot combat. It was used to strike the opponent's head (the word poll means head) and the solid hammerhead at the back could concuss a man in armor. The long langets of this example of about 1470 helped to hold the head firmly and prevent the shaft from being cut when fighting.

Plate to deflect side blows from the armpit

Pauldron

Langet

Rondel protects the hand

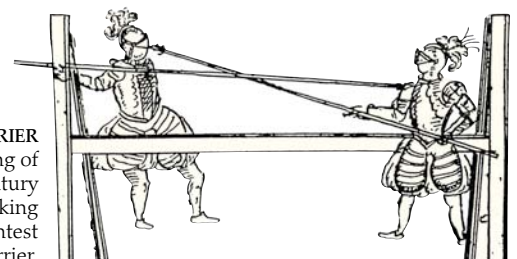
Gauntlet

FOOT-COMBAT ARMOR

This German armor of about 1580 forms part of a garniture, or collection of pieces. Some larger garnitures could be made into several different armors. The surface was originally blued, and is etched and gilded, with the ornament outlined in black. The visor and upper bevor lock together with a bolt. This stops them from accidentally flying open if struck, a safety feature of some foot-combat helmets. No leg armor was worn because the combat took place over a barrier and blows below this level were forbidden.

THE BARRIER

This crude drawing of the late 16th-century shows knights taking part in a foot contest over the barrier.





Or, a pale gules



Azure, a fess embattled or



Sable, a cross engrailed or



Lozengy, argent and gules



Vert, a crescent or



Azure, a fleur-de-lys or



Gules, a spur argent

Heraldry

MEN HAVE ALWAYS decorated their shields. In the 12th century these designs became more standardized in a system known as heraldry, which enabled a knight to be identified by symbols on his shield, or a full coat of arms. It is often said that this was done because helmets with face guards made knights difficult to recognize, but a more likely reason was the need to identify contestants in tournaments. Heraldry was based on strict rules. Only one coat of arms was carried by a knight, and this passed to his eldest son when he died. Other children used variants of their father's arms. Arms used a series of standard colors and "metals" (silver or gold) and are described in a special language, based on Old French.



HERALDIC JAR

Coats of arms were placed on all sorts of objects, to show ownership or simply to add color. This jar of about 1500 has quartered arms, in which the arms of two families joined by marriage appear twice together.



COSTUME DESIGN

The fleur-de-lys, heraldic emblem of France, is used to decorate this long tunic. The fur lining of the mantle was also adapted for heraldic purposes.



BADGE OF OFFICE

This copper arm badge was worn by a servant of François de Lorraine, Hospitaller Prior of France from 1549 to 1563, whose arms it bears. Retainers of a lord often wore his livery badge.



ROLL OF ARMS

Heralds made lists to keep a record of participants in military events like tournaments and battles. The Carlisle Roll contains 277 shields of King Edward III's retinue on his visit to Carlisle, England, in 1334.

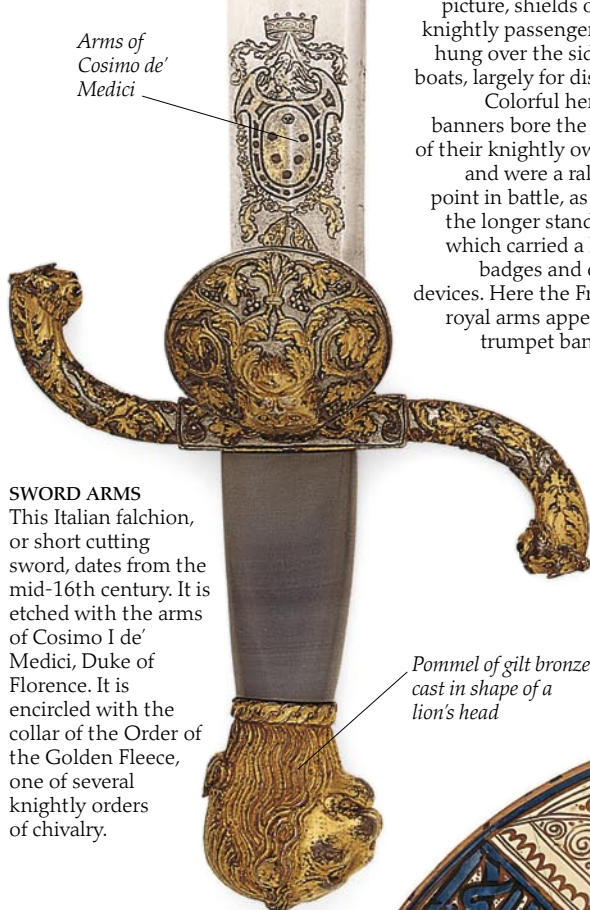


A KNIGHT'S SHIELD

This rare surviving shield of the 13th century is made from wood, which has a lion rampant molded in leather. These are the arms of a landgrave (ruler) of Hesse in Germany. He is represented as a knight of the Teutonic Order; the white shield and black cross of the Teutonic knights has been painted on the lower left.

Lion rampant

Arms of
Cosimo de'
Medici



SWORD ARMS

This Italian falchion, or short cutting sword, dates from the mid-16th century. It is etched with the arms of Cosimo I de' Medici, Duke of Florence. It is encircled with the collar of the Order of the Golden Fleece, one of several knightly orders of chivalry.

COLORFUL SPECTACLE
In this 15th-century picture, shields of the knightly passengers are hung over the sides of boats, largely for display.

Colorful heraldic banners bore the arms of their knightly owners and were a rallying point in battle, as were the longer standards, which carried a lord's badges and other devices. Here the French royal arms appear on trumpet banners.



MAKING AN IMPRESSION

The bezel of this large gold 14th-century signet ring is engraved with heraldic arms, which include those of the de Grailly family. Above are the letters: "EID Gre," probably meaning: "This is the seal of Jean de Grailly." When pressed into hot wax used to seal a document, the arms appeared in the wax the right way around.



Pommel of gilt bronze
cast in shape of a
lion's head



SPANISH PLATE

The Spanish kingdom of Castile had a castle for its arms, while that of Leon used a lion. The two kingdoms united in 1230 and their quartered arms were first noted in 1272. On this Spanish dish of about 1425, the true heraldic colors have been ignored, while the background has designs influenced by the Spanish Muslims.



Gules, a lion
rampant or



Or, a lion sejant
regardant purpure



Gules, a swan
argent



Azure, a dolphin
naiant argent



Or, a dragon
rampant vert



Or, a portcullis
purpure



Azure, a sun in
splendor or

KEY TO LABELS ON ARMS

Or	Gold
Argent	Silver
Gules	Red
Azure	Blue
Sable	Black
Vert	Green
Purpure	Purple

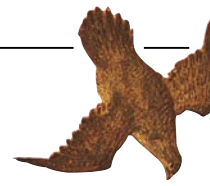


COAT OF ARMS

The brass of Sir Thomas Blenerhasset (died 1531) shows the heraldic arms on his coat armor, the name given to the surcoat. The version worn at this time is the tabard, also used by heralds.



Hunting and hawking



MEDIEVAL MONARCHS AND LORDS were very fond of hunting and hawking. These sports provided fresh meat, as well as helped to train knights for war. Hunting, for example, allowed them to show their courage when facing dangerous animals like a wild boar. The Norman kings set aside vast areas of woodland for hunting in England, and there were severe penalties for poachers or anyone who broke the forest laws. The animals hunted ranged from deer and boar to birds and rabbits. Knights often hunted on horseback, which provided excitement and useful practice for war. Sometimes "beaters" drove the prey toward the huntsmen, who lay in wait. Hunters might also use bows or crossbows, which gave them good experience with these weapons. Hawking was very popular, and good birds were prized. One 15th-century manuscript gives a list of hawks, showing how only the higher members of society could fly the best birds.

NOBLE BEASTS

This detail of the carving on the side of the crossbow tiller shows a stag hunt. Only rich people were allowed to hunt stags.

Wooden tiller veneered with polished stag horn carved in relief



Steel pin to engage rack for drawing bow



FLYING TO A LURE
A lure was a dummy bird that the falconer swung from a long cord. The falcon would pounce on the lure, so that the falconer could retrieve his bird. The lure could also be used to exercise a bird or teach it to climb high and "stoop" down on its prey.

Wooden flights

WOODEN FEATHERS

These German crossbow bolts date to about 1470. One has wooden flights rather than the feathers usually seen on arrows.



FOR DEER

HUNTERS below
The blade of a German hunting sword of about 1540 is etched with scenes of a stag hunt. Such swords were carried for hunting and also for general protection.



Deer being driven into nets

WOLF HUNT

When hunting for wolves, huntsmen would hang pieces of meat in a thicket and drag them along pathways to leave a scent. Look-outs in trees warned of the wolf's approach and mastiff dogs flushed it out for the hunters. This hunt is pictured in a copy of the late-14th-century hunting book of Gaston Phoebus, Count of Foix, France.



FREDERICK II THE FALCONER

This German emperor liked falconry so much that in the mid-13th century he wrote a book on the subject, from which this picture comes. Some lords even kept hawks in their private rooms.

Dogs chasing the deer

Hunting horn



Man shooting squirrel



Falconer

ON THE HUNT

A Flemish or German silver plaque of about 1600 shows knights hunting with hounds, falconry, and guns. One hound catches a hare in front of three ladies who watch with interest from their carriage.



Revolving nut released by trigger below

Triangular barbed head

PET CARE

Hunting dogs needed careful looking after.

Gaston Phoebus recommends the use of herbal medicines to cure mange, diseases of the eye, ear, and throat, and even rabies. Swollen paws damaged by spiny plants required attention. Dislocated shoulders were treated by bonesetters, and broken legs were put in harnesses.



AFTER THEM!

Upper-class women were also avid hunters. In this illustration of about 1340 a lady blows a hunting horn as she gallops after the dogs.



WEAPON AT THE READY

The crossbow was a popular hunting weapon. It could be used on horseback and easily reloaded using a goat's-foot lever or a ratchet-and-winder mechanism called a rack. The bowstring was drawn back over the nut and held there until released by the trigger, the crossbow could be kept drawn tight in case any game was flushed out.

Crossbows for use in hunting were sometimes lavishly decorated. On this example of 1450–1470 the owner's coat of arms is painted on the tiller, and there are carved panels showing hunting scenes.

Original bow string of twisted cord



BOAR-CATCHER

The boar spear was a stout weapon intended to stop an onrushing boar or even a bear. To keep the blade from going too far into the animal, a crossbar was provided. Boar-sword blades were also pierced for a crossbar.

The tusks of the aggressive boar were highly dangerous



Faith and pilgrimage

THE CHURCH PLAYED A MAJOR PART in the life of the Middle Ages. Western Europe was Roman Catholic until Protestantism took hold in some countries in the 16th century. Most people held strong beliefs and churches flourished, taking one-tenth of everyone's goods as a sort of tax called a tithe. Monasteries were sometimes founded by wealthy lords, partly to make up for their sins. Some lords actually became monks after a life of violence, hoping that this would make it easier for them to enter heaven. To get help from dead saints, Christians would make pilgrimages to well-known shrines, such as the tomb of St. Peter in Rome, and wear a symbolic badge. Holy relics, many of them forgeries, were carried for protection.



OWNER OF THE HORN
This medallion shows Charles, Duke of Burgundy, who owned the Horn of St. Hubert in the late 15th century.



Container for holy water

WATER CARRIER

People wore tiny containers called ampullae holding Holy Water to protect themselves from evil. This one has a picture of St. Thomas Becket, killed in Canterbury, England in 1170, and would have been bought after a pilgrimage to his shrine.



KNIGHT AT PRAYER

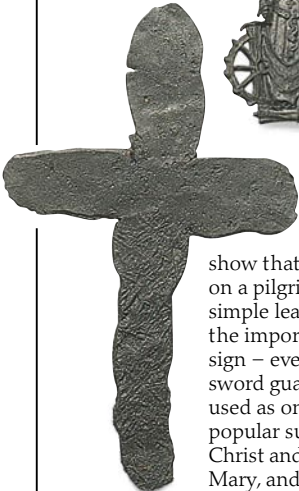
The saints played a vital part in peoples' lives. This stained-glass window from the Netherlands shows a knight from the Bernericourt family praying at a statue of Mary Magdalene.

Lead pilgrim badge of St. Catherine martyred on a wheel

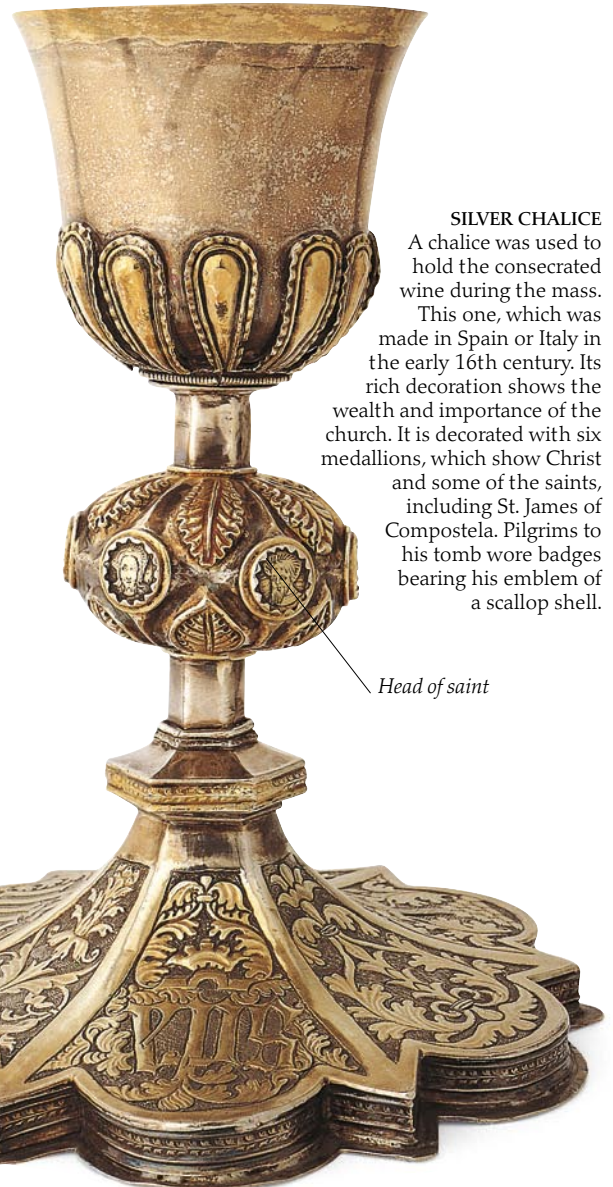


SYMBOLS OF FAITH

People often wore badges to show that they had been on a pilgrimage. The simple lead cross shows the importance of this sign – even a knight's sword guard could be used as one. Other popular subjects were Christ and the Virgin Mary, and the saints.



Lead seal showing the Virgin Mary holding baby Jesus



SILVER CHALICE

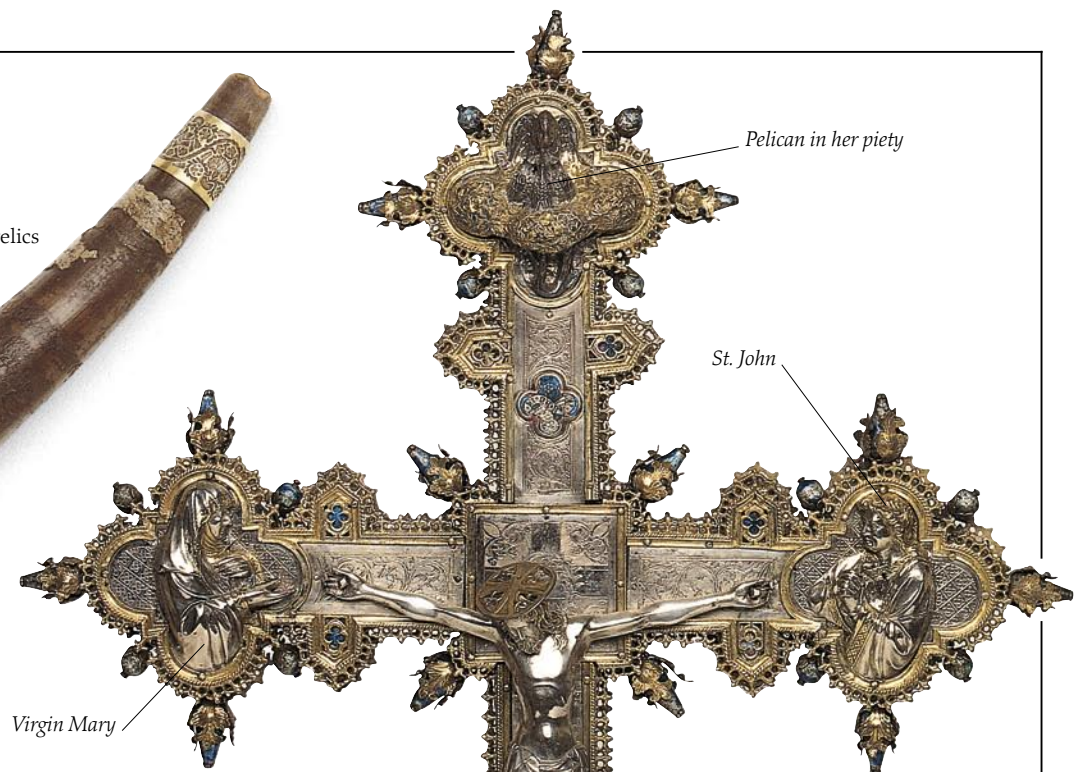
A chalice was used to hold the consecrated wine during the mass.

This one, which was made in Spain or Italy in the early 16th century. Its rich decoration shows the wealth and importance of the church. It is decorated with six medallions, which show Christ and some of the saints, including St. James of Compostela. Pilgrims to his tomb wore badges bearing his emblem of a scallop shell.

Head of saint

HORN OF ST. HUBERT

Medieval people liked to touch or even possess relics of the dead saints, even though some had no connection with the real saint. St. Hubert was said to have seen the vision of a cross shining between a deer's antlers, and he became the patron saint of huntsmen.



Pelican in her piety

St. John

Virgin Mary

Crucified Christ

St. Nicholas

TO BE A PILGRIM

These 15th-century pilgrims are traveling to the Holy Land. Jerusalem, where Christ was crucified and buried, was the greatest goal, but getting there meant a long and dangerous journey. Pilgrims who returned from Jerusalem were called palmers and wore a palm-leaf badge.



MISSIONARY

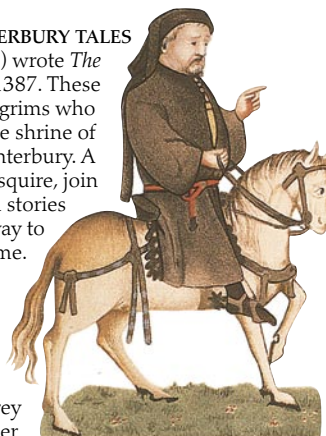
The Church was always eager to convert others to Christianity, either through peaceful teaching or by more forceful methods like those used by the Teutonic Knights in Eastern Europe. Here a friar called Oderic receives a blessing before he goes to the East as a missionary. Knights might also desire a blessing before undertaking dangerous tasks or journeys.

THE CANTERBURY TALES

Geoffrey Chaucer (right) wrote *The Canterbury Tales* in about 1387. These concern a group of pilgrims who travel from London to the shrine of Thomas Becket in Canterbury. A knight (left) and his son, a squire, join the group, who tell stories along the way to pass the time.



Chaucer's knight



Geoffrey Chaucer

PROCESSIONAL CROSS

This early 15th-century Italian silver cross has been partly gilded and decorated with enamels. The Virgin Mary, St. John, and St. Nicholas are shown on the arms of the cross. The pelican is a symbol of piety – people thought that she wounded herself in order to feed her young, a symbol of Christ bleeding for all sinners.



PEOPLE'S CRUSADE

In 1096 the French preacher Peter the Hermit led an undisciplined mob from Cologne in Germany toward Jerusalem. On their way they pillaged and looted, killing Jews for their money and because they thought them responsible for Christ's death. Though there were some knights in this People's Crusade, it was wiped out in Anatolia (modern Turkey) by the Turks.



The Crusades

IN 1095 AT CLERMONT, FRANCE, Pope Urban II launched a military expedition to take the Christian Holy Places in Jerusalem back from the Muslim Turks who ruled the Holy Land. This expedition became known as the First Crusade. A huge army traveled thousands of miles across Europe, gathering at Constantinople (now Istanbul) before going on to capture Jerusalem in 1099. But the city was soon retaken by the Muslims and many other crusades failed to take it back, apart

from a brief period in 1228-29 when the German emperor, Frederick II, made an agreement with the Muslims. Even Richard the Lionheart, the warlike English king and a leader of the Third Crusade of 1190, knew that if he could capture the city, he would not be able to hold it. Nevertheless, western leaders set up feudal states in the Holy Land. The fall of Acre in 1291 marked the end of these states, although Christians still fought Muslims in Spain, the Mediterranean, and the Balkans. Crusades were also preached against non-Catholic heretics in Europe.



SPANISH CRUSADERS

Muslims, known as Moors, had lived in Spain since the eighth century. From the 11th century on, Christian armies tried to push them back south; Granada, their last stronghold, fell to the Christians in 1492. Warrior monks, such as the Order of Santiago, seen in this 13th-century picture, helped the Christian reconquest of Spain.



TAKING SHIP

To get from Europe to the Holy Land, people could either take the dangerous road overland, or cross the Mediterranean Sea. The Italian city-states of Venice, Pisa, and Genoa, eager for new trade, often provided ships. Unfortunately, in 1203 Venice persuaded the leaders of the Fourth Crusade to attack the Byzantine capital of Constantinople, which never recovered.

THE MAMLUKS

An elite body of troops, the Mamluks were slaves recruited by the Muslims. This late 13th- or early 14th-century bronze bowl shows a mounted Mamluk heavy cavalryman. He appears to be wearing a lamellar cuirass, a type of armor that was made from small iron plates laced together. Above his head he holds a slightly curved saber.



Border of crowns

KING ON A TILE

Medieval churches were often decorated with patterned ceramic tiles. These examples come from Chertsey Abbey, England. They bear a portrait of Richard I, known as Richard the Lionheart, who was king of England from 1189 to 1199, and was one of the leaders of the Third Crusade of 1190.

Mamluk cavalryman



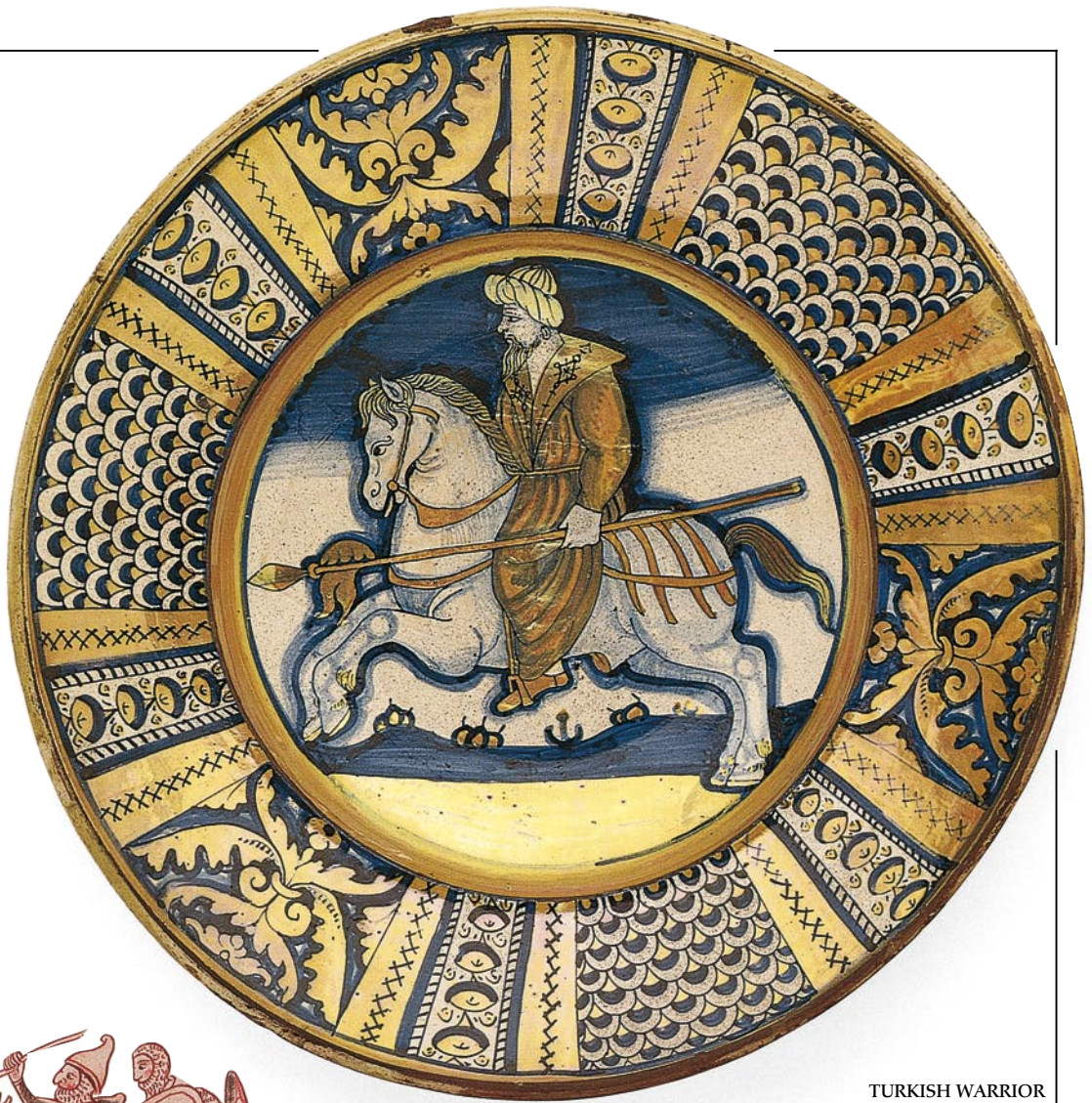
Arabic inscription



A SARACEN

Many Saracens (nomadic Muslims) used fast horses and shot arrows at the

Crusaders from their recurved composite bows. Some wore forms of plate armor but many wore mail or padded defenses. Round shields were common, and curved slashing sabers became popular in the 12th century.



TURKISH WARRIOR

This Italian dish of about 1520 shows a Turkish warrior. The crusades died out in the early 14th century and the great fortified city of Constantinople (now Istanbul) stood between Turkey and the mainland of Europe. However, the city never fully recovered from the damage it suffered during the Fourth Crusade in 1204. In 1453 it finally fell to the Sultan Suleyman the Magnificent. It has remained part of Turkey ever since.



FIGHTING FOR THE FAITH

This mid-13th-century picture shows Christians and Muslims clashing in 1218 during the Christian siege of Damietta at the mouth of the Nile in Egypt. The artist has dressed the Muslims (on the right) much like Christians.

STRONGHOLDS IN THE EAST

The Crusaders built stone castles and borrowed some ideas from examples in the East. Crusader castles were built on strong natural sites when possible. This huge castle, Krak des Chevaliers in Syria, was held by the Knights Hospitalers. An outer ring of walls was added in the 13th century.

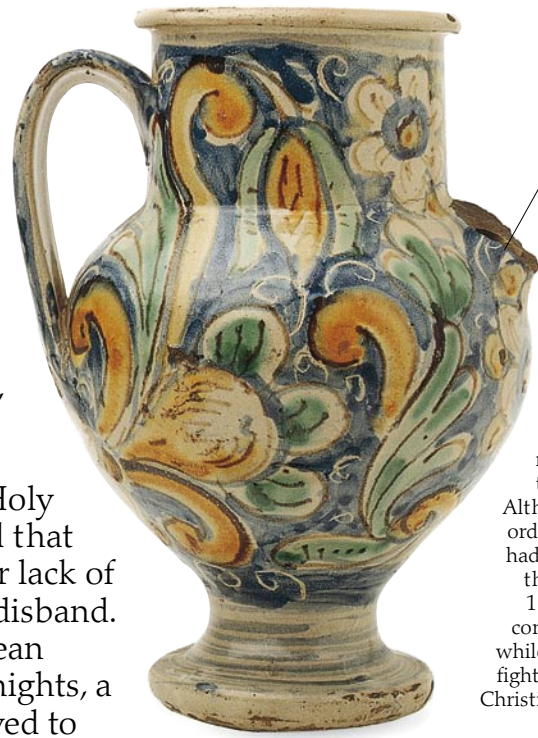


CROSS-LEGGED KNIGHT

This effigy, carved in the late 13th century, was said to be that of English knight Sir John Holcombe, who died of wounds during the Second Crusade (1147-1149). The cross-legged pose is often thought to indicate a Crusader. In fact it is simply a style used by the sculptors of the time.

Knights of Christ

IN 1118 A BAND OF KNIGHTS who protected Christian pilgrims in the Holy Land were given quarters near the Jewish temple of Jerusalem. These men, known as the Knights Templar, became a religious order but differed from other monks by remaining warriors and continuing to fight the Muslims. In the same period another order of monks, who had worked with the sick, became a military order called the Knights of St. John or Knights Hospitaller. When the Christians lost control of the Holy Land in 1291, the Templars, by now less active, found that the European rulers did not like their power and their lack of action, and withdrew their support, causing them to disband. The Hospitallers moved their base to the Mediterranean and continued fighting the Muslims. The Teutonic Knights, a German order that had become military in 1198, moved to eastern Europe and fought to convert the Slavs to Christianity.



Position of original spout

MEDICINE JAR

The Hospitallers used jars made from decorated pottery called majolica to hold their medicines. Although a military order, these monks had been caring for the sick since the 11th century and continued to do so while also providing fighting men for the Christian wars against the Muslims.



THE HOSPITAL

Malta was the final home of the Knights of St. John. This engraving of 1586 shows them at work on the great ward of their hospital in the Maltese capital, Valletta.



BRONZE MORTAR

Ingredients for Hospitaller medicines were ground by a pestle in this mortar dating from the 12th or 13th century.



BURNING THE TEMPLARS
After the Christians took control of the Holy Land, the Templars became very rich and powerful, which made them unpopular. King Philip IV of France decided to seize their wealth. The grand master, Jacques de Molay, was killed in 1314 and the order was suppressed in Europe.

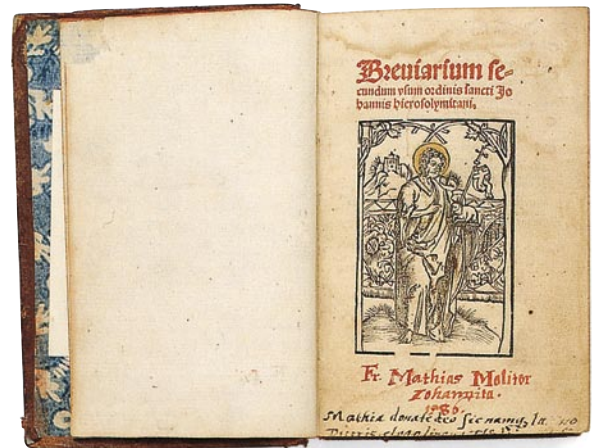
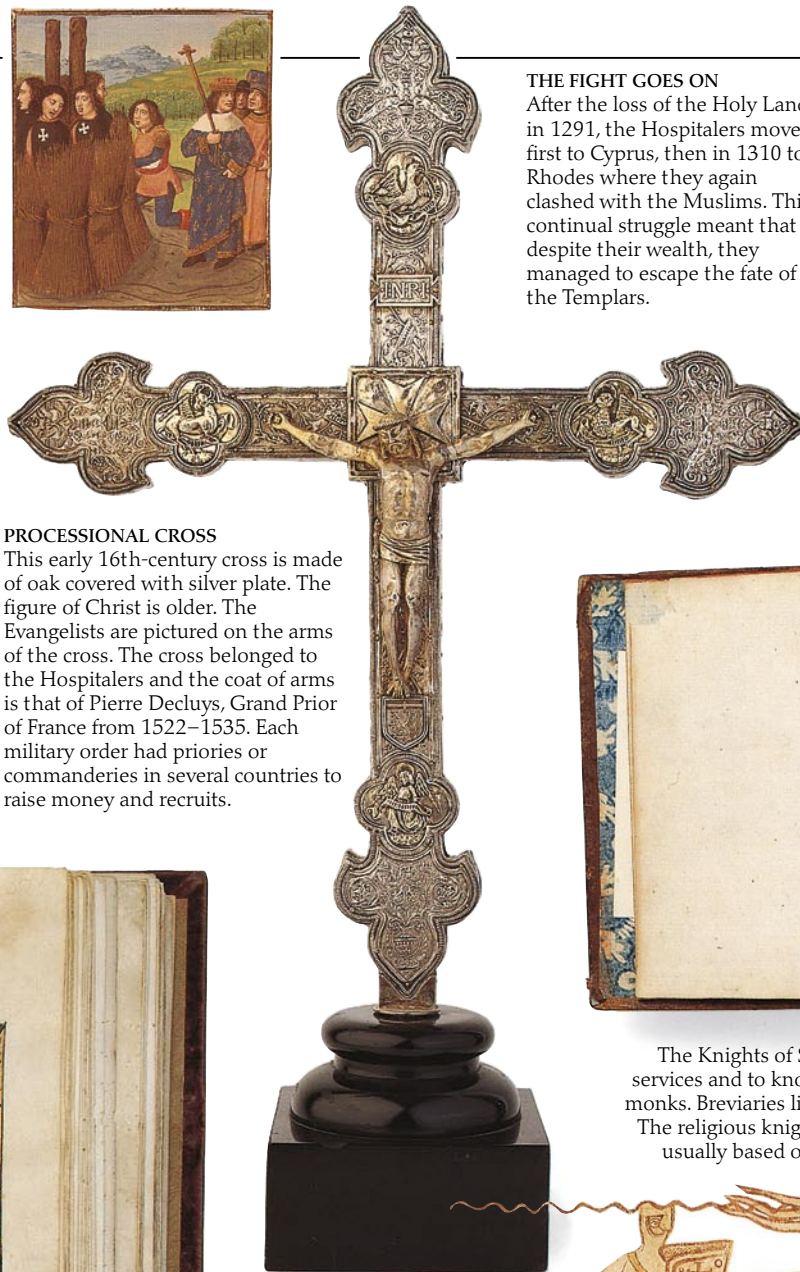


THE FIGHT GOES ON
After the loss of the Holy Land in 1291, the Hospitallers moved first to Cyprus, then in 1310 to Rhodes where they again clashed with the Muslims. This continual struggle meant that despite their wealth, they managed to escape the fate of the Templars.



GRAND MASTER'S SEAL
A Grand Master led each military order. This seal belonged to Raymond de Berenger, who ran the Hospitallers from 1363–1374.

PROCESSIONAL CROSS
This early 16th-century cross is made of oak covered with silver plate. The figure of Christ is older. The Evangelists are pictured on the arms of the cross. The cross belonged to the Hospitallers and the coat of arms is that of Pierre Decluys, Grand Prior of France from 1522–1535. Each military order had priories or commanderies in several countries to raise money and recruits.



ORDER OF SERVICE above
The Knights of St. John were expected to attend church services and to know their Bible in the same way as other monks. Breviaries like this one contained the daily service. The religious knights had to obey strict rules, which were usually based on those of the regular monastic orders. Hospitallers followed the rule of St. Benedict, the Templars that of the Cistercian order.



KNIGHT TEMPLAR
Templars wore a white surcoat (tunic) with a red cross. In this 12th-century fresco from the Templar church at Cressac, France, a knight gallops into battle.

THE RHODES MISSAL
Joining the Knights Hospitaller meant being a skilled fighting man yet rejecting the world for a monastic life. Like other monks, the knights swore to serve the order faithfully, to remain chaste, and to help those in need. It is thought that many knights took their vows on this book, the late-15th-century Rhodes Missal.



WATER BOTTLE
A water supply was vital in the heat of the Mediterranean and along pilgrim routes in the Holy Land. This metal water bottle of about 1500 bears the cross of the Order of St. John.

Knights of the Rising Sun

EUROPE WAS NOT the only area to have a warrior class. Japan developed a society similar to the feudal system of medieval Europe, and the equivalent of the knight was the samurai. Like his western equivalent, he was a warrior, often fighting on horseback, serving a lord, and served by others in turn. After the Gempei War of 1180-1185, Japan was ruled by an emperor, but real power lay with the military leader or Shogun. However, civil wars had weakened the Shogun's power by 1550, and Japan was split into kingdoms ruled by *daimyo* or barons. In 1543 Portuguese merchants brought

the first guns to Japan: soon large, professional armies appeared. A

strong shogunate was revived after a victory in 1600, and the last great samurai battle was fought in 1615.



HELMET AND FACE GUARD

Helmets like this 17th-century example are often fitted with mustaches. They have a neckguard made of iron plates coated with lacquer (a type of varnish) and laced together with silk. Lacquer was used to protect metal from moisture in the humid climate of Japan.



EARLY ARMOR ABOVE

This 19th-century copy of 12th-century armor is in the great armor, or *O-yoroi*, style. An iron strip is attached to the top of the breast, and the rest of the cuirass is made of small lacquered iron plates laced together with silk and leather. The 12th-century samurai who wore armor like this were basically mounted archers.



FIGHTING SAMURAI

These two samurai are fighting on foot. From the 14th century on, there was an increase in this type of combat, although samurai still fought on horseback when necessary. The shift toward foot combat with sword and curved spear brought changes in the armor.



SWORDSMAN

Samurai prized their swords greatly. This 19th-century print shows a samurai holding his long sword unsheathed. His smaller sword is thrust through his belt, with the cutting edge uppermost to deliver a blow straight from the scabbard.



PAIR OF SWORDS

The main samurai sword was the *katana*, sheathed in a wooden scabbard (*saya*). The guard for the hilt was formed by a decorated oval metal plate (*tsuba*). The grip (*tsuka*) was covered in rough sharkskin, to prevent the hand from slipping, and bound with silk braid. A pommel cap (*kashira*) fitted over the end. The pair of swords (*daisho*) was completed by a shorter sword (*wakizashi*), which was also stuck through the belt.

Tempered edge

MASTER AND SERVANT

A small lacquered case, or *inro*, is decorated with a picture of a servant kneeling before a samurai. Warriors needed servants to attend them and look after their equipment – just like western knights. A samurai held life-and-death power over his servants and over the farmers who worked on his land and provided him with food.



THE ART OF SWORDSMANSHIP

In this section from a 19th-century picture by Kunisada, a samurai called Minamoto Yoshitsune is instructed in swordplay by creatures called *tengi*. Learning to use the sword correctly took many years of hard work – there were many moves that the swordsman had to perfect. Japanese swords had extremely sharp cutting edges.



Sharkskin grip

WARRIOR

This 19th-century photograph shows a samurai dressed in his armor. This is made of solid plates of iron, unlike the earlier small laced plates. Over his armor he wears a surcoat, or *jinbaori*. He carries not only his swords but also a long bow made of bamboo and other woods glued together and bound with rattan. His helmet crest bears a pair of horns.



MODERN ARMOR

From the 16th century, Japanese armor was made more solid, in a bid to give more protection from bullets. This example is a 19th-century armor called a *tosei gusoku*. A cuirass, or *do*, protects the chest, each arm has a defense (*kote*) and shoulder guard (*sode*), and each leg has armor for the lower thigh (*haidate*) and shin (*suneate*). The helmet (*kabuto*) has a face defense (*mempo*) and is fitted with a buffalo-horn crest.



The professionals

IN THE HEAT OF BATTLE even heavily armed squadrons of knights could not break the disciplined ranks of infantry. The wars between France and Burgundy in 1476–1477 showed how mounted knights were unable to defeat solid bodies of pikemen backed up by soldiers using handguns. So by 1500 the infantry was becoming the most important part of any army. In Germany foot soldiers called *Landsknechte* copied their Swiss neighbors in using pikes and guns. The way men were hired was also changing. Feudal forces, who fought in return for their land, were

increasingly being replaced by paid permanent forces of well-trained soldiers backed up by mercenaries and men recruited locally. Mounted knights were becoming less effective on the battlefield.

PUFFED AND SLASHED ARMOR

In the late 15th and early 16th centuries the Swiss and German *Landsknechte* enjoyed showing off by wearing extravagant clothing in the “puffed and slashed” style. This German armor made in about 1520 mimics that style. The slashings are etched and gilded, while the surfaces in between are etched to suggest damask or cut velvet cloth.



HANDGUNNERS

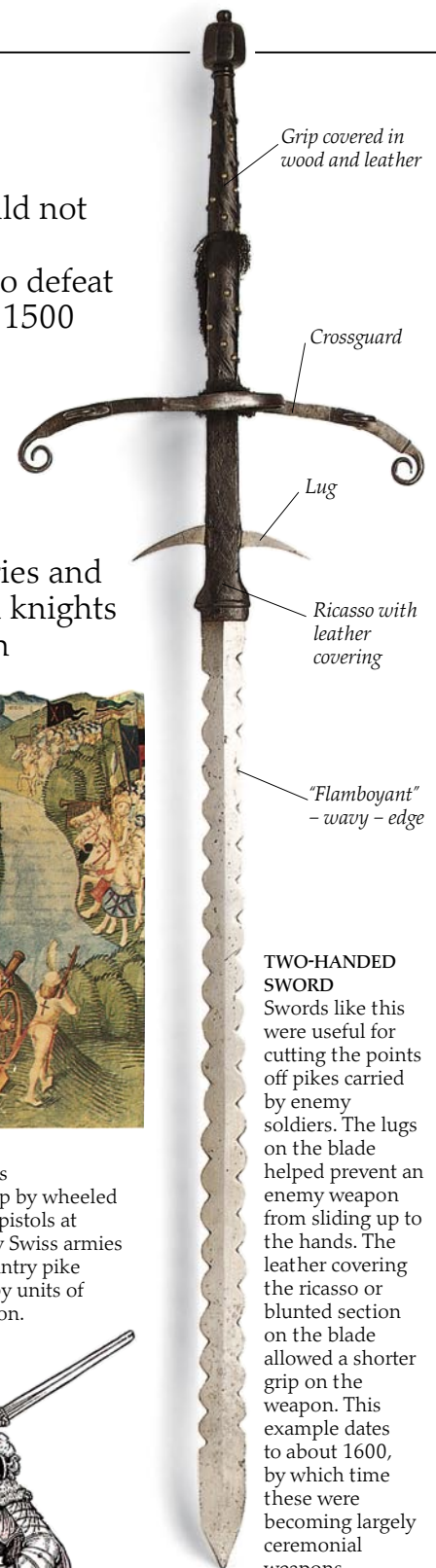
Late-15th-century Swiss handgunners, backed up by wheeled cannon, fire matchlock pistols at enemy soldiers. Already Swiss armies consisted largely of infantry pike formations supported by units of handgunners and cannon.

Steel strips to guard inside of elbow



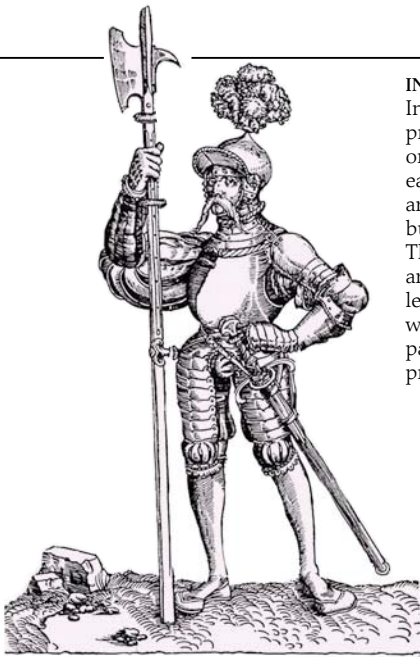
CAT-GUTTER

This German *Landsknecht* of about 1520 wears partial armor with puffed and slashed breeches and a “bishop’s mantle” of mail to guard his neck. As well as a two-handed sword, he carries a distinctive short sword that was called a *Katzbalger* (cat-gutter).



TWO-HANDED SWORD

Swords like this were useful for cutting the points off pikes carried by enemy soldiers. The lugs on the blade helped prevent an enemy weapon from sliding up to the hands. The leather covering the ricasso or blunted section on the blade allowed a shorter grip on the weapon. This example dates to about 1600, by which time these were becoming largely ceremonial weapons.



HALBERDIER

This *Landsknecht* of the 16th century wears the usual elaborate costume and armor, this time surmounted by a plume. In addition to his sword he carries a halberd similar to the one shown on the right.

IN BLACK AND WHITE
Infantrymen who could afford some protection often chose a half armor, omitting leg pieces so they could walk easily. Light horsemen wore similar armor. The open helmet, called a burgonet, let more air get to the face. The black-and-white effect on this armor of about 1550 was made by leaving some areas as bright steel while painting other parts black. The paint was also thought to protect against rust.



HALBERD

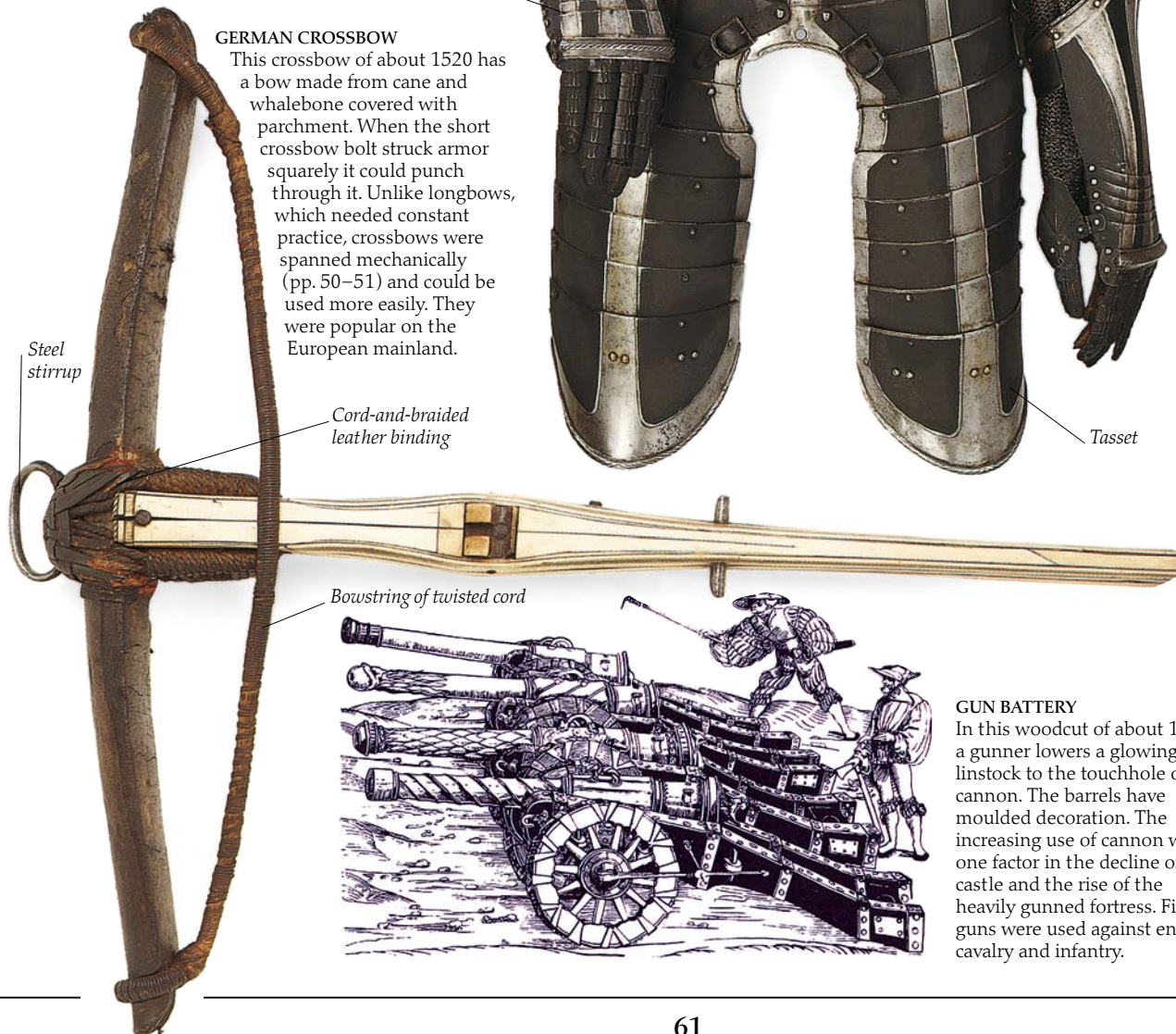
The heavy ax head on this infantry staff weapon could be used to maim an enemy, while the beak on the back could trip up horses or hook a knight from the saddle. This German example dates to about 1500.

Cheek piece of burgonet

Gauntlet

GERMAN CROSSBOW

This crossbow of about 1520 has a bow made from cane and whalebone covered with parchment. When the short crossbow bolt struck armor squarely it could punch through it. Unlike longbows, which needed constant practice, crossbows were spanned mechanically (pp. 50–51) and could be used more easily. They were popular on the European mainland.

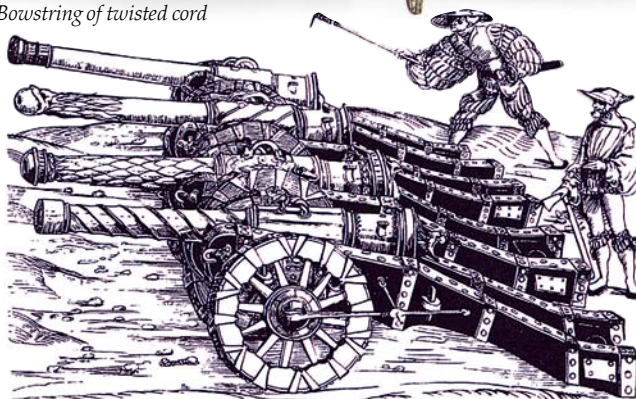


Steel stirrup

Cord-and-braided leather binding

Bowstring of twisted cord

Tasset



GUN BATTERY

In this woodcut of about 1520, a gunner lowers a glowing linstock to the touchhole of a cannon. The barrels have moulded decoration. The increasing use of cannon was one factor in the decline of the castle and the rise of the heavily gunned fortress. Field guns were used against enemy cavalry and infantry.

**PROCESSIONAL
PARTIZAN**
With firearms taking
over the battlefield
many edged weapons
were made for
ceremonial use only,
like this German
partizan of about 1690.

The decline of chivalry

RULERS INCREASINGLY PREFERRED to use professional soldiers, leaving knights to live on their estates. By the 17th century, warfare was becoming more and more the job of full-time soldiers and mercenaries.

Knights occasionally fought as officers, usually of cavalry, but the medieval fighting man was now only a memory. No longer was knighthood only granted to sons of knights. It was becoming an honor, a title given to people that the monarch thought deserved recognition. This idea still continues in many places, but the knight of old was not forgotten. His image survived, helped partly by old castles and stories of heroes such as King Arthur, and the magic woven by medieval poets and 19th-century romantics lives on.

CUIRASSIER

The last armored knights wore armor like this and were known as cuirassiers. The use of massed pikemen and firearms meant that knights could no longer use lances to charge at an enemy. To protect against bullets, armor plates were thickened; since they were heavier, the lower leg defenses were left off and replaced with leather riding boots.

Unlike this fine etched and gilt Italian example of the early 17th century, many such armors were crudely made.

Long tasset

Detachable
knee-piece

Grip

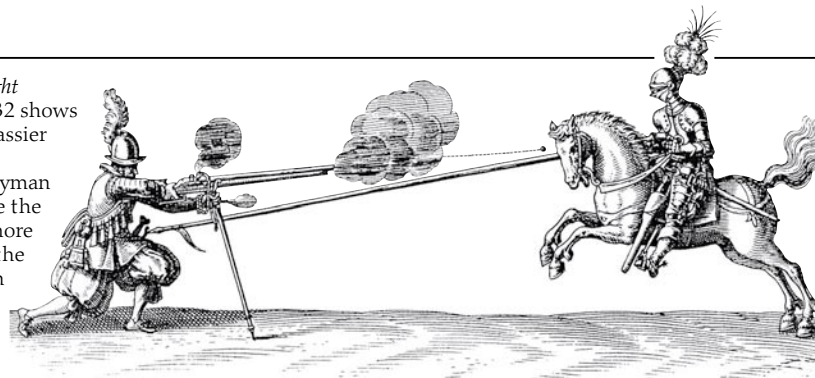
Butt could be
used as a club



BUFF COAT

Light cavalymen found that a coat of soft, thick buff leather was able to stop a sword cut and was more comfortable than full armor. It was worn either alone or with a breastplate and backplate. At this time, breastplates were usually "proofed," or tested, by being shot at before they were worn.

OLD VERSUS NEW *right*
This engraving of 1632 shows how an armored cuirassier with a lance could be stopped by an infantryman with a musket. Notice the wheel-lock pistol, a more effective weapon for the horseman, hanging in its holster from the saddle.



PREPARING TO FIRE

left
An early-17th-century Dutch musketeer pours a measured amount of gunpowder from his powder flask into his musket.



Piece of rock which strikes metal to make a spark; this lights the gunpowder and fires the gun



DON QUIXOTE

Miguel de Cervantes, of Spain, wrote *Don Quixote* in the early 1600s. The novel tells of a foolish old man who jousts with windmills thinking they are giants and treats a peasant girl as his lady. He feels a sad yearning for lost knightly ideals and chivalry.



WHEEL-LOCK PISTOL

With better-quality gunpowder and larger numbers of soldiers being armed with guns, there was little place for the armored knight. Cuirassiers and light cavalry carried two wheel-lock pistols. This German example of about 1590 has an ebony stock inlaid with engraved panels and strips of stag's horn.

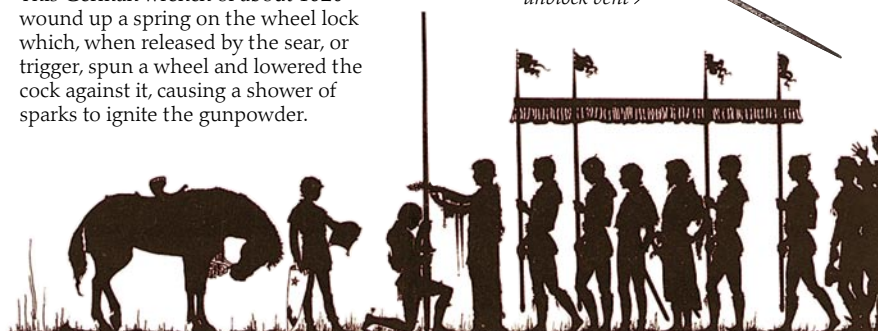
Screwdriver

KEY

This German wrench of about 1620 wound up a spring on the wheel lock which, when released by the sear, or trigger, spun a wheel and lowered the cock against it, causing a shower of sparks to ignite the gunpowder.

Pivoting pricker to unblock vent

Swivel eye for suspension



Key cylinder

Ramrod

This late-16th-century cartridge box was designed to hang from a belt



THE VICTOR

The chivalrous ideal knight is shown about to receive his prize on this Victorian silhouette. The knight in shining armor, the quest for the Holy Grail, and other legendary Arthurian adventures appealed to the romantic Victorian mind.

Did you know?

AMAZING FACTS



The expression "to get on your high horse" means to be overbearing or arrogant. It comes from the Middle Ages, when knights and other people of high rank rode on tall horses, called chargers. People of lower rank rode on smaller horses or ponies.



During a siege, a trebuchet was sometimes used to throw very unpleasant missiles into a castle. The severed heads of defenders, cattle dung, and dead animals that could spread disease were just some of the offerings shot over the castle walls.



Knight's tall horse known as a charger

Knight riding high on horseback



Spiral staircases were common in medieval castles. They usually spiraled in a clockwise direction. This made life difficult for an attacker fighting his way up the steep stairs, because his weapon (in his right hand) would keep hitting the post in the center of the stairs.



Samurai armor was made of iron plates laced together with silk and thread. Because the climate in Japan is damp, the armor had to be lacquered to stop it from rusting.



The badge of the Knights Templar order was two knights riding on one horse. This represented their original state of poverty.



Krak des Chevalier



The name Templars came from the location of their headquarters, which was situated near the old Jewish temple in Jerusalem.



King Richard I, known as Richard the Lionheart, ruled England from 1189–1199 and was in many ways a model knight. He was a heroic fighter and zealous crusader, and was committed to the ideal of chivalry. On his deathbed, it is said that he even pardoned the crossbowman who had fatally injured him with his arrow.



The castle of Krak des Chevaliers in Syria was a crusader castle built in the 12th century. The Knights Hospitaller lived there and defended nearby pilgrim routes against the local Muslim rulers. It had a windmill for grinding corn and its own aqueduct and nine reservoirs to supply and store water.



Just like modern tourists, medieval pilgrims wore badges on their hats to show they had been to a shrine. The badge made it clear they were on a journey and had the right to protection.



In 1212, up to 50,000 French and German children took part in a crusade to the Holy Land. Few of them ever returned home.



Castle defenders often dropped missiles onto attackers below. Hot water, red-hot sand, rocks, or quicklime were often used. But boiling oil, beloved of modern filmmakers, is rarely mentioned in contemporary chronicles.

Pivoting wooden arm

Sling pouch

Trebuchet

Ladders used to scale the city walls



The siege of Jerusalem by the Christian crusaders in 1099

QUESTIONS AND ANSWERS

Q What does chivalry mean?

A During the Middle Ages the word chivalry was used to mean the knightly class, who were known as the Chivalry. The name comes from the French word *cheval*, meaning horse, because knights were soldiers who rode on horseback. In time chivalry came to mean the qualities expected of an ideal knight, such as courtesy, bravery, and honor.

Q Were tournaments dangerous?

A A tournament, or tourney, was a mock battle, designed to keep the knights in shape and entertain the ladies and other members of the court, but it could be very dangerous and bloody. At one tournament held in Cologne, Germany, more than 60 knights were killed.

Q What happened to knights who were defeated in battle?

A If a knight defeated an opponent in battle, he would not necessarily kill him. An enemy knight could be more valuable alive than dead, since his family would pay ransom money to get him back. If the money was not forthcoming, the knight would have to remain in prison until it was!

Q Do knights still exist today?

A The only knights in suits of shining armor that exist today are all in museums, but the order of knighthood still remains in Britain. A knighthood—which means you are addressed as “sir”—is given by the king or queen to a British subject for outstanding service to the country.



Scene from a medieval tournament

Q Who built the first English castle?

A It is hard to know for sure. However, when William of Normandy invaded England in 1066, his soldiers placed fortifications on the old Roman fort at Pevensey. They then went to build what looks like a motte and bailey at Hastings, in Sussex, and waited there for the arrival of King Harold and the English army. The building of this fortification is shown on the Bayeux Tapestry.

Q What were the crusades to the Holy Land?

A The crusades were a series of holy wars launched by the pope and other Christian leaders to recapture the Holy Land from Muslim control and to safeguard the pilgrimage routes. The crusades began in 1095, and ended in failure with the fall of Acre, the last Christian stronghold, in 1291.



Soldiers constructing what could be the first English castle, in 1066

Record Breakers



LONGEST RIDE IN ARMOR

The longest recorded ride in armor was 208 miles (335 km) by Dick Brown. He left Edinburgh, Scotland on June 10, 1989, and arrived in Dumfries, four days later. Total riding time was 35 hours, 25 minutes.



THE MOST KNIGHTS

During the reign of Henry II (1154–1189), the king could call upon the services of more than 6,000 knights. Each knight pledged to serve in his army for 40 days each year without pay.

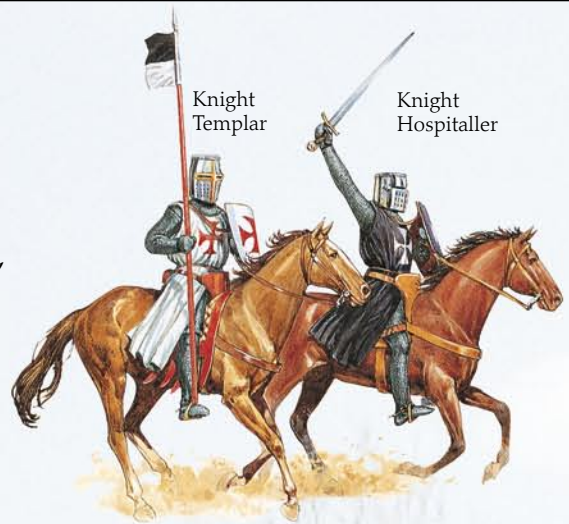


THE MOST EXPENSIVE KING

When Richard 1 of England was captured by the Duke of Austria in 1192, England paid a ransom of 150,000 marks—a huge sum in those days, equivalent to many millions of dollars in today's money.

Timeline

THE FIRST KNIGHTS were mounted warriors who fought for their lords and protected his peasants in the lawless conditions of ninth-century Europe. By the 11th century, a new social order was formed by these armored knights and a whole tradition of knightly honor and pageantry was born. This order lasted until the 16th century, when professional of well-trained soldiers using pikes and guns replaced the armored knight. Knights also lived in Japan, and had an impact in many other countries, too.



- **771–814 CHARLEMAGNE EMPLOYS MOUNTED WARRIORS**
Charlemagne, leader of the Franks, conquers much of present-day France, Germany, the Low Countries, and Italy, using many warrior horsemen in his army. He gives land as both reward and payment to those warriors who fight for him.

- **800 CHARLEMAGNE IS CROWNED EMPEROR**
On Christmas Day 800, Charlemagne is crowned Emperor of the West by the pope in Rome. This new empire lasts for more than 1,000 years.

- **814 CHARLEMAGNE DIES**
After the death of Charlemagne, his empire breaks up. Local lords and those mounted warrior knights who serve them offer protection to local people in return for labor, giving rise to the feudal system in western Europe.

Wooden spear with iron spearhead

Viking warriors



- **c. 850 FIRST CASTLES BUILT**
Dirt and wood castles are built in northwest France to protect the local lord from his enemies and to defend him and the local people against Viking attacks. Castles are also built of stone.

- **911 NORMANDY FOUNDED**
Charles III of France gives land to Viking invaders in an attempt to stop them from invading his country. The land is called Normandy, "land of the Northmen."

- **1000s THE NEW ORDER OF KNIGHTS**
A new social order of mounted, armored knights develops in many parts of western Europe. These knights serve a local lord or duke and are in turn served by serfs or peasants. At first, they wear simple body armor made of mail.

- **1000s BECOMING A SQUIRE**
Many squires are servants of a lower social class, but later the sons of noble families become squires, too. In the 1000s and 1100s, young men wishing to become knights first serve as squires or apprentices to knights.

- **1066 NORMANS INVADE ENGLAND**
Duke William of Normandy invades England and defeats King Harold at the Battle of Hastings. As king, William introduces the feudal system into England and builds many stone castles.

- **1095 THE CRUSADES BEGIN**
The pope launches the first military crusade against Muslim occupation of the Holy Land. Many knights join this army. Further crusades are launched from Europe until Acre, the last Christian stronghold in the Holy Land, is captured by a Muslim army in 1291.

- **1118 KNIGHTS TEMPLAR FORMED IN JERUSALEM**
Knights protecting Christian pilgrims in the Holy Land form a religious military order known as the Knights Templar.

- **1100s ADDED PROTECTION**
Knights start to add more mail to their armor to protect their arms and legs.

- **1100s THE CODE OF CHIVALRY**
A code of conduct, known as chivalry, is adopted by all knights. It requires them to behave in a courteous and civil way when dealing with their enemies and places special emphasis on courtly manners towards women.



- **1100s THE FIRST TOURNAMENTS**
Tournaments, or mock battles, are first fought to train knights for battle. These events take place over a large stretch of countryside.

- **1100s THE BIRTH OF HERALDRY**
Decorations on shields now become more standardized using a set of rules known as heraldry. This increasingly elaborate system enables a knight to be identified by the symbols on his shield, or by his full coat-of-arms.

• 1100s NEW SIEGE MACHINES

The first trebuchets—pivoting sling catapults—are used in siege warfare in western Europe. They join existing weapons such as catapults, battering rams, and ballistas—large, mounted crossbows—in besieging and attacking castles.

• 1100s AGE OF THE TROUBADOURS

Troubadours or minstrels from southern France popularize poems of courtly love, romance, and chivalry. Stories about King Arthur and his knights of the round table become increasingly popular throughout western Europe.

• 1185 SHOGUN JAPAN

A samurai warrior class led by the Shogun or military leader take power in Japan, although the emperor is still the official ruler of the country.

• 1189–1199 RICHARD I

Richard Coeur de Lion, nicknamed the “the Lionheart,” rules England. He fights in the third crusade, from 1190–92, and is a prisoner from 1192–1194.

• 1190 THE TEUTONIC KNIGHTS

A new religious and military order of knights—the Teutonic Knights—is formed to fight in the crusades, but soon turns its attention to converting pagans to Christianity in eastern Europe.

• 1200s ADDED HORSEPOWER

Most knights now have at least two warhorses, as well as a destrier for jousting, a sumpter or packhorse for carrying baggage, and a palfrey for arduous long journeys.

• 1200s SAFER TOURNAMENTS

Blunted weapons are introduced at tournaments to make the contests safer. A new form of contest—jousts—is also introduced, in which two knights fight each other on horseback with lances or sometimes swords.

• 1200s THE RISING COST OF KNIGHTHOOD

The cost of becoming a knight is now so expensive that many young men avoid being knighted and remain as squires. In later years, the word squire comes to mean a gentleman who owns land.

• 1280s NEW WEAPONS

Pointed swords replace double-edged cutting swords as the main fighting weapon for knights. These are more effective, since they can be thrust between the plates of armor that knights now wear to protect themselves.

• 1300s NEW PLATED ARMOR

Knights now begin to add steel plates to their armor to protect their limbs. They also wear a coat-of-plates, made of pieces of iron riveted to a cloth covering, to further protect their body.

• 1300s THE ARRIVAL OF CANNON

Cannon now appear on the battlefield to replace battering rams, catapults, and other manual machines in siege warfare.

• 1300s JOUSTING ON FOOT

Combat between two knights on foot becomes increasingly popular at tournaments. The contestants use swords and are allowed a set number of blows. By the 1400s, such contests have developed into more complex events involving javelins and axes as well as swords.



Edward the Black Prince, English hero of the Battle of Crécy

• 1300s DEFENSE AGAINST THE KNIGHT

In 1302 Flemish footsoldiers using clubs defeat French mounted knights at the Battle of Courtrai. Scottish spear formations using pikes stop a charge by English mounted knights and defeat them at the Battle of Bannockburn in 1314. Both battles prove that knights are not invincible.

• 1337–1453 THE HUNDRED YEARS' WAR

In 1337 Edward III of England claims the French throne and invades the country. War between the two countries continues on and off for more than 100 years. Thanks to their longbowmen, the English achieve decisive victories over French knights at Crécy (1346), Poitiers (1356), and Agincourt (1415). The codes of chivalry are often ignored in this brutal war.

• 1400 FULL BODY ARMOR

Knights begin to wear full suits of plate armor, giving them all-over body protection.

• 1476–1477 FRANCE vs. BURGUNDY

War between France and Burgundy shows how mounted knights are unable to defeat solid bodies of pikemen backed up by soldiers using handguns. Infantry rather than cavalry now become the most important members of the army.

• 1494 FRANCE INVADES ITALY

The invasion of northern Italy by France in 1494 leads to a lengthy power struggle for supremacy in Europe between France and the Hapsburg empire of Spain and Austria. Conflict between the two powers continues for most of the next century.

• 1500s DESIGNER ARMOR

Those knights still wearing armor etch designs into the metal with acid. Gold plating, or gilding, is sometimes used for added decoration.



Italian barbute or iron helmet, 1445

• 1500s A PROFESSIONAL ARMY

Paid, permanent armies of well-trained soldiers backed up by mercenaries and locally recruited men gradually replace the feudal armies of previous years. Knights now play a less effective role in battle.

• 1517 THE REFORMATION

In Germany Martin Luther starts a revolt against the Roman Catholic Church that leads to the creation of Protestant churches throughout western Europe and more than a century of bitter religious conflict.

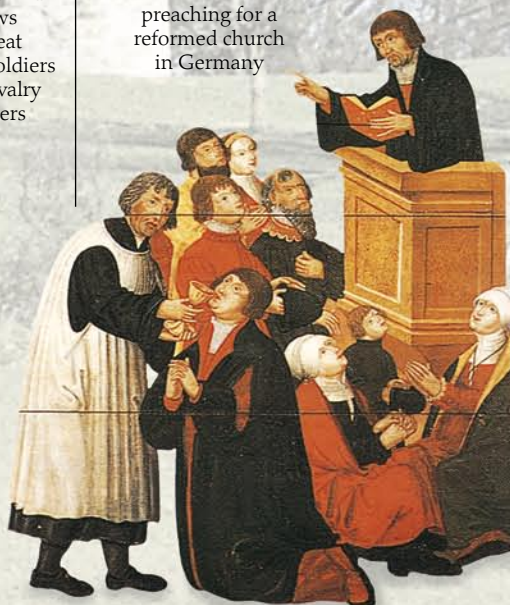
• 1600s THE END OF THE TOURNAMENT

During the 1600s, the tournament is replaced in most countries by displays of horsemanship called carousels.

• 1600s THE END OF AN ERA

As warfare becomes the job of full-time soldiers and mercenaries, the era of the knight comes to an end. Knighthood now becomes a title granted by the monarch to a person he or she wishes to reward.

Martin Luther preaching for a reformed church in Germany





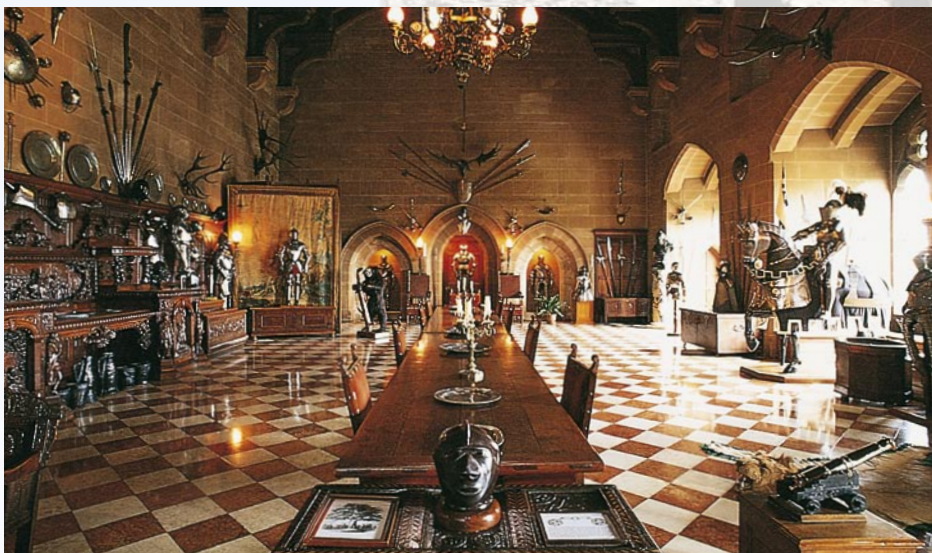
DESIGN YOUR OWN COAT-OF-ARMS

You can design your own or your family's coat-of-arms and use it to decorate your personal letters and belongings. The symbols you choose should be something special to you or have some connection to your name or to the place where you live. Read up about coats-of-arms and heraldry in books at your local library, or use the website listed below to find out more about this fascinating subject.

Find out more

IF YOU ARE NOW A FAN of knights and the medieval world of castles, battles, and jousts in which they lived, here are some ways that you can find out more about them. Of course, you can't go back in time to meet real knights for yourself, but you can visit some of the many castles where they lived. Your local museum may very well have an exhibit about knights, perhaps even a few suits of armor, and you can also visit some of the best national museums and castles—listed on page 69. Your local library and bookshop will have plenty of books for you to read about knights, and there are often programs and films on television and video for you to watch at home. Above all, check out the internet—some of the best websites to visit are listed below—and you too will soon become a dedicated knight-watcher.

The Great
Hall, Warwick
Castle



Narrow slit
in helmet to
see through

Late 15th-
century
German
"Gothic"
style armor



SEE ARMOR IN A MUSEUM

You can see knights' armor in various museums, castles, and stately homes in Europe and North America. One of the best collections is in the Royal Armouries in Leeds, Yorkshire, England.

RETURN TO MEDIEVAL TIMES!

You can see how knights lived and fought in the dramatic reconstructions of medieval life that exist in some old castles, notably Warwick Castle, in England. Here you can see how a knight prepared for battle, as well as visit the armory and explore the medieval gatehouse, towers, and ramparts, and the magnificent Great Hall and other state rooms.

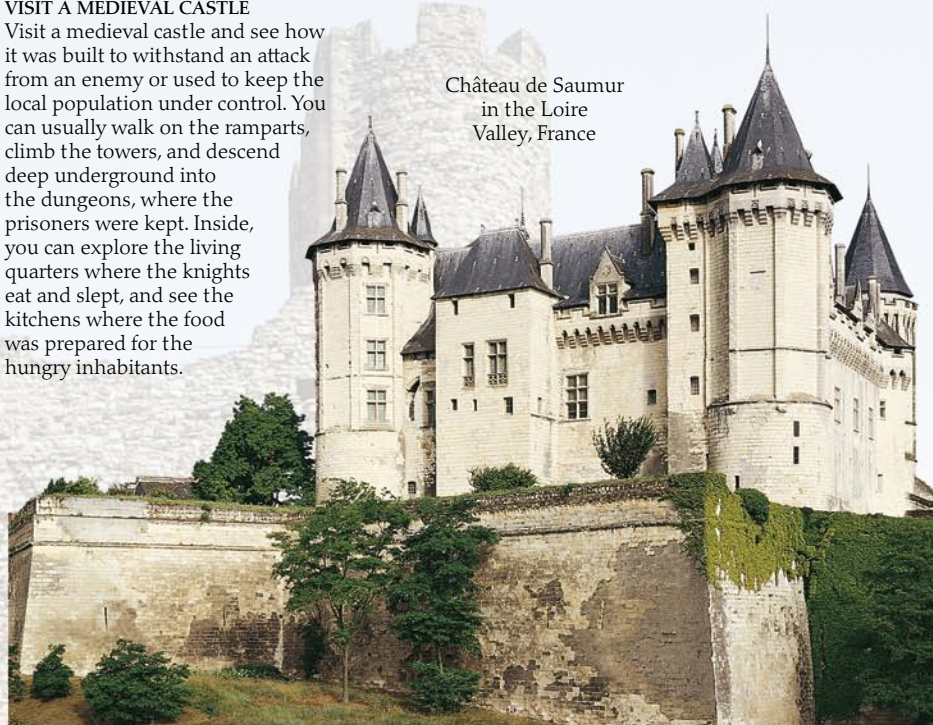
USEFUL WEB SITES

- Online home of the arms and armor department at the Metropolitan Museum of Art in New York:
www.metmuseum.org/collections/departments.asp?dep=4
- Web site for kids about medieval armor and knights at the Cleveland Museum of Art:
www.clevelandart.org/kids/armor/index.html
- A directory of Renaissance fairs around the country, with information on knights and jousting:
renaissance-faire.com/
- Site of the International Jousting Association, with information on where you can see live tournaments:
www.worldjousting.com/
- Heraldry site where you can look up the history of your family's name and coat-of-arms, with clip art section to help you create your own coat-of-arms
www.digiserve.com/heraldry/

VISIT A MEDIEVAL CASTLE

Visit a medieval castle and see how it was built to withstand an attack from an enemy or used to keep the local population under control. You can usually walk on the ramparts, climb the towers, and descend deep underground into the dungeons, where the prisoners were kept. Inside, you can explore the living quarters where the knights eat and slept, and see the kitchens where the food was prepared for the hungry inhabitants.

Château de Saumur
in the Loire
Valley, France



SEE FIGHTING AND JOUSTING

Medieval knights fighting and jousting with each other is not just a thing of the past, for some historical reenactment groups put on displays of fighting or jousting today. Look in the useful websites box on the opposite page for more details. If you are lucky, you could even see a full-scale reenactment of a medieval tournament.

Sir Galahad is introduced to King Arthur and the knights of the round table



King Arthur

Modern-day jousting charges his opponent with a lance



STORIES OF KING ARTHUR

You can read stories about knights and their daring adventures in the tales of the legendary King Arthur and his knights of the round table. There is still much dispute about who King Arthur was, or whether he actually existed at all, but most people now believe that he was a British chieftain or warrior who led the resistance to the Saxon invasion of England in the fifth or sixth centuries. Many places in southern England, notably Tintagel in Cornwall, are associated with the king, and many books have been written about him.

Places to Visit

METROPOLITAN MUSEUM OF ART, NEW YORK, NEW YORK

www.metmuseum.org

The museum's collection of arms and armor consists of about 15,000 objects dating from 400 BCE to the 19th century. Western Europe and Japan are most strongly represented, but there are also items from throughout Asia and North America. Highlights include:

- the armor of King Henry II of France
- German shields from the late 15th century
- armor made in the English royal workshops at Greenwich for Tudor courtiers.

HIGGINS ARMORY MUSEUM, WORCESTER, MASSACHUSETTS

www.higgins.org

This museum is entirely dedicated to the study and display of arms and armor. Special programs explain how knights would have used weaponry in battle and tournaments. Be sure to see:

- the complete suit of armor of Count Franz von Teuffenbach of Styria, made around 1540
- the steel gauntlets that belonged to King Philip of Spain.

ART INSTITUTE OF CHICAGO, CHICAGO, ILLINOIS

www.artic.edu

The museum's Harding Collection includes more than 1,500 artifacts of medieval life.

The permanent collection contains:

- suits of armor, including an elaborate suit of Italian field armor
- weapons such as swords, daggers, and polearms.

CLEVELAND MUSEUM OF ART, CLEVELAND, OHIO

www.clevelandart.org

This museum has a medieval court featuring a full set of armor for a knight and his horse, and many other treasures.

WARWICK CASTLE, ENGLAND

A medieval castle which is also one of the finest stately homes in England. Reenactments of medieval life and jousting take place here during the summer months. The main sights include:

- the armory, which features a massive 14th-century two-handed sword and a fully armored knight on horseback
- the Kingmaker Exhibition, which recreates medieval life and the Wars of the Roses
- 14th-century ramparts and towers.

THE TOWER OF LONDON, LONDON, ENGLAND

This medieval fortress on the River Thames is guarded by the Yeoman Warders, popularly known as Beefeaters. Among the attractions here are:

- the White Tower, commissioned by William the Conqueror in 1078 and completed 21 years later
- The Crown Jewels, which include the crowns, scepters, and orbs used at royal coronations and other state occasions.

Glossary

BALLISTA A weapon used in siege warfare, consisting of a giant crossbow mounted on a frame that shot bolts.

BARBARIANS Uncivilized people. The word is often used to describe the many tribes who invaded the Roman Empire in the fourth and fifth centuries CE.

BATTLEMENT The top part of a castle wall that had gaps in it through which archers could shoot at attackers.

BIT The metal part of a bridle that fits inside the horse's mouth and is used to control the horse.

BODKIN A long, thin arrowhead, shaped like a needle.

BOLT An arrow used for shooting from a weapon such as a crossbow or ballista.

BUTT A target set on a mound of earth, used by archers for shooting practice.

CATAPULT An engine for throwing missiles.

CHALICE A cup used to hold the wine in the Christian service of mass, or the Holy Communion.

CHIVALRY Originally meaning horsemanship, chivalry came to refer to the combination of qualities expected of an ideal knight, such as courage, honor, and courtesy. In the 12th century, this behavior was extended to form a knightly code of conduct, with a special emphasis on courtly manners towards women.

COAT OF ARMS A set of symbols used by a knight on his shield or surcoat to identify him in battle or at a tournament.



Bodkin

COAT OF PLATES A form of body armor invented in the 14th century and consisting of a number of pieces of iron riveted to a cloth covering.

CRENEL A gap on the top part of a castle wall through which defenders could shoot at attackers.

CROSSBOW A bow fixed across a wooden handle with a groove for a bolt. Various mechanisms were developed to help pull back the cord. The cord was then released to shoot the bolt.

CRUSADES A series of military expeditions made by European knights during the Middle Ages. The goal of the Crusades was to capture the Holy Land from Muslim control.

DESTRIER A knight's warhorse.

DUBBING The ceremony at which a squire was made a knight. The king or another knight tapped the squire on the neck with a sword, then the new knight was presented with his sword and spurs.

EFFIGY A sculpture of a person. In the Middle Ages, many wealthy people's tombs were decorated with a life-sized effigy of them.

EMBRASURE An alcove set in a castle wall with a small opening through which archers, crossbowmen, or gunners could shoot.

ETCHING Using acid to 'eat' a design on exposed parts of metal. Suits of armor were sometimes etched with patterns.

FEUDAL SYSTEM A social system used in Europe during the Middle Ages, under which a local lord gave land to his vassals in return for their allegiance and service.

GARRISON A group of soldiers stationed in a castle or town to defend it.

GATEHOUSE The entrance to a castle. The gatehouse was often protected with heavily fortified towers, a portcullis, drawbridge, and a ditch or moat outside.

GILDING Putting a thin covering of gold on an object to decorate it.

HERALDRY A system of using symbols on knights' shields or coats-of-arms, so that they could be easily identified in battle or in tournaments.

HERETIC Someone whose religious views are unacceptable to the mainstream church.

HOLY GRAIL According to legend, the Holy Grail was the cup that Jesus used at the Last Supper. In the stories of King Arthur, many of his knights went on quests to find the Holy Grail.

INFANTRY Soldiers who fought on foot.

JOUST A combat between two mounted knights armed with lances. Jousting was invented to allow knights to show off their battle skills.



Gatehouse to Caerphilly Castle, Wales

KEEP A strong stone tower that formed part of a castle. They were probably used for storage, or as living quarters.

KNIGHT A warrior who fought on horseback. The term is normally used for the period c. 800–1600, when warriors fought with swords and lances, rather than guns and other small arms.

KNIGHTS HOSPITALER A military order of monks who also cared for the sick. They were also known as the Knights of St. John.

KNIGHTS TEMPLAR An order of monks who were also fighting knights. They fought against the Muslims and protected Christian pilgrims in the Holy Land.

LANCE A long weapon with a wooden shaft and a pointed metal head. Knights used lances when charging on horseback.

LONGBOW A large bow used during the Middle Ages. It was usually made of yew wood and could shoot arrows over 1,000 ft (300 m) away.



Embrasure in a castle wall



Joust at Tours in France, 1446

LUGS Two small crosspieces on a spear or sword that stopped the weapon being pushed too far into an opponent's body and getting stuck.

MACE A heavy weapon, consisting of a metal head on top of a wooden pole.

MAIL A form of armor made of many small linked iron rings. Mail could be made up into garments, such as coats or mittens.

MERCENARY A hired soldier who fought simply for money.

MOOR A Muslim from northwest Africa.

MOTTE AND BAILEY An early style of castle. The motte was a mound with a wooden tower on top; the bailey was a courtyard below the motte and contained the domestic buildings. The bailey was surrounded by a wooden fence and a ditch to keep out intruders.

NORMANS People who came from Normandy in northern France. The Normans were descended from the Vikings who settled in the region during the 10th century. The Normans conquered England under their leader, Duke William of Normandy, in 1066.

PAGE A young boy servant in the household of a king or great knight. Pages were usually the sons of noble families and were in training to become knights when they were older.

Model of a Japanese samurai



Reenactment of Japanese feudal lords paying their respects to the Shogun

PALFREY A horse used for long journeys.

PEASANT A farm laborer or other person who works for a lord.

PILGRIMAGE A journey to a sacred place for religious reasons. In the Middle Ages, some Christians went on pilgrimages to Jerusalem and other sites in the Holy Land, and to the tombs of famous saints, such as that of St. Peter in Rome.

PLATE ARMOR Body armor made of large metal pieces, as opposed to mail.

POMMEL A round knob on the end of a sword handle, which helped to balance the weight of the blade.

PORTCULLIS A metal gate, or an ironclad wooden gate, that could be lowered in front of the entrance to a castle to stop attackers from getting in.

QUIVER A bag hung from an archer's back, or more usually his waist, in which he stored his arrows.

RANSOM A sum of money demanded for the release of a prisoner, such as a lord or knight, who was captured or defeated in battle. The captors demanded the ransom from the prisoner's family.

SAMURAI A Japanese warrior.

SARACEN A name used at the time of the Crusades for all Muslims and Arabs. The Saracens were originally nomadic people who lived in the Syrian and Arabian deserts.

SCALING LADDER A long ladder used by attacking soldiers to try to climb over the wall of a castle.

SCONCE A candlestick for hanging on a wall.

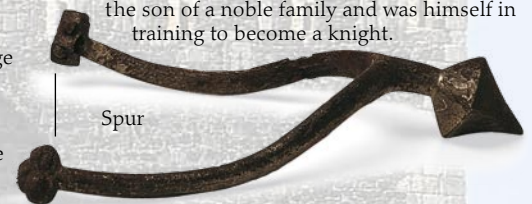
SERF A laborer who was not allowed to leave the land on which he worked.

SHOGUN A Japanese military leader.

SHRINE A holy site, such as a saint's tomb.

SPUR A V-shaped device with a spiked wheel, that a knight attached to the inside of his heels and used to urge his horse forwards.

SQUIRE A young man who served as an attendant to a knight. A squire was usually the son of a noble family and was himself in training to become a knight.



Spur

STIRRUPS Two loops suspended from a horse's saddle to support the rider's feet.

SURCOAT A loose coat or robe worn over armor. A knight's surcoat was sometimes decorated with his coat of arms.

TILT A barrier used in jousting to separate two charging knights and avoid collisions.

TOURNAMENT A pageant that included mock battles, jousting, and foot combat, in which knights practised their fighting skills, often using blunted weapons.

TREBUCHET A weapon used in siege warfare to throw large missiles at a castle.

TROUBADOURS Medieval French poets who composed and sang poems on the theme of courtly love.

VISOR The moveable part of a helmet that covered the face.

WINDLASS A machine with a horizontal axle, used to wind back catapults and ballistas, as well as some later powerful crossbows.

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